THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

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The Cultivator & Country Gentleman.

CLOVER FOR A RENOVATING CROP.

MESSRS. EDITORS—Permit me to call the attention of your readers to some of the advantages of growing clover to improve the farm. Although there are many farms in various parts of the country that have been improved and brought up to a high state of fertility mainly by growing and using large quantities of clover, yet there is much reason for believing that the great mass of farmers have very inadequate conceptions of the many and great advantages that may be realized by growing and consuming large quantities of clover on the farm. I say consuming, because I do not believe that as a general thing it is necessary or best to take up any considerable part of the use of the land to raise clover to plow under, for I am satisfied that on all but very badly run land a very satisfactory improvement may be realized without. I am aware that most farmers associate the idea of improving land with clover, with plowing in large quantities for manure, but I hope to show before I get through that not only a high state of fertility may be secured without, but that it may be brought about easier and cheaper in this than in any other way. True there may be instances where it would be advisable to plow under a crop of clover. For instance, when land is badly run, and there is no manure nor time to gather and feed the clover to make manure before it is wanted, and where the crop perhaps is not very heavy, and will not make much manure, though including roots and stubble there will be enough to plow under to effect a very considerable improvement. This is frequently the case in commencing on a badly run farm. I have also known very satisfactory results obtained by plowing under clover every other year for wheat. And I have now in mind a farmer that has followed this course until, as he says, he has got his land too rich for wheat, the crop lodging badly, probably because the land has become heavily charged with vegetable matter. Now had this farmer, after he got his land fairly going—for he commenced on land that was badly run—gathered and fed his clover, carefully saving and returning the manure to the land, and continuing to seed to clover as often as possible, and following some rotation of crops suitable to his soil and location, I can but think it would have been as well for the land and much more profitable for himself. For though he raised heavy crops of wheat, yet he only got one on the same field in two years, as but little was taken off of the land but the wheat; so the average income from the land was not very large, say from $15 to $18 per year, while a rotation with the same good farming and management would undoubtedly have given an average of from $20 to $25 or more, the land yielding a crop to be harvested every year.

Now the principal objection to plowing in clover is that it takes for manure a very valuable crop for feeding, and one that has taken the use of the land some time to raise; so if we can secure all of the advantages of the various uses of clover desired, and at the same time a continued and decided improvement of the soil, a great, if not the great desideratum, will be realized. This I claim can be done by seeding to clover often, say twice in six years' rotation, once with wheat and once with some spring crop, and plowing it up when in vigorous growth, thus turning under two good clover sods, containing in the roots and stubble left in mowing a large amount of rich vegetable manure—as much probably as may be needed on any but a very poor soil, or one very deficient in vegetable matter—in that time. And during the same time giving in the three crops of clover that can be gathered or fed off on the land, an amount of forage that for its value for keeping or fattening farm stock, and for making a very rich and valuable manure, as well as for cheap and easy production, exceeds anything else within the reach of the American farmer.

In regard to the value of clover roots to improve the soil, I cannot do better than to quote the following from Johnston's Agricultural Chemistry, page 424, where it is stated, "This burying of recent vegetable matter in the soil, in the form of living and dead roots of plants, is one of the most important ameliorating operations of nature which is always to some extent going on wherever vegetation proceeds. It is one by which the practical man is often benefitted unawares, and of which—too often without understanding the source from whence the advantage comes—he sys-

tematically avails himself in some of the most skillful steps he takes with a view to the improvement of his land." In regard to the amount of clover roots in proportion to the amount of hay, it is stated, page 423, that "in a clover field at the end of the second year, the fresh roots were equal to one-third of the whole weight of green clover obtained at three cuttings—one the first, and two the second year—while in the dry state there were 56 lbs. of dry roots to every 100 lbs. of clover hay which had been carried off." Accordingly it is stated, page 424, "in the case of clover, at the end of the second year the quantity of dry vegetable matter left in the form of roots, is equal to upwards of one-half the weight of the whole hay which the clover has yielded. Suppose there be three cuttings, yielding four tons of hay, then two tons of dry vegetable matter are added to the soil in the form of roots when the clover stubble is plowed up." Then on page 441, to show the value of clover roots as compared with farm-yard manure, it is stated that 250 lbs. of clover roots are equal to 1,000 lbs. of barn-yard manure; that is, equal effects are produced by these amounts, calculated according to the amount or per centage of nitrogen each contains. According to this, the two tons—4,480 lbs.—of roots would be equal to about nine tons, or say loads of barn-yard manure. Now this would be about the amount of roots that would be grown by the clover sown with the wheat, or the second sowing of clover in the rotation proposed; while at the first sowing there should be a cutting of one and a half to two tons of hay more, leaving from three-quarters to one ton of roots, or if the clover is cut early, and allowed a few weeks growth—as it may be—and then plowed under for wheat, giving from one and a half to two tons, equal to from six to nine loads of manure, and equal to from fifteen to eighteen loads of bard-yard manure in all, in a rotation of six years. Another point to be kept in view, is that the amount of roots grown the first year the land is in clover, will be much larger than in any subsequent year on the same seeding. After showing that this is the case, Johnston says, page 425, that "that farming, therefore, is most economical—where the land will admit of it—which permits the clover or grass seeds to occupy the land for one year only." Hence will be seen the great advantage of the extra or additional seeding in the rotation, over the usual custom of seeding down but once. Another advantage is found in the fact that there is but little land that is rich eneugh to give a good crop of wheat after any kind of spring grain; while there will be time enough after an early crop of clover hay is taken off, to make a very good summer fallow, which, with a good clover sod turned under, and a light top-dressing of rotten manure previous to sowing, will be pretty sure to give a heavy crop of wheat.

Then it should be kept in mind, that the above quotations in regard to clover roots relate to clover grown in other countries, while I believe it is generally admitted that there is no other country equal to this for growing clover, as has been repeatedly stated by Mr. JOSEPH HARRIS, editor of Genesee Farmer, whose experience in England and in this country, has given him excellent opportunities to judge. And while there have been but few experiments tried in this country—as far as I know—to ascertain how large a quantity of clover roots can be or generally is grown to the acre, yet such as I have come across tend strongly to show that they amount to a good deal more than is given by Prof. Johnston.

Not having time and space to look up and quote these accounts, I shall leave this part of the subject, after introducing, as evidence on this point, the statement of Hon. GEORGE GEDDES, in Transactions of the New-York State Agricultural Society for 1859, page 323, where it is said: "The oftener we can fill the soil with roots (of clover) and plow them under, and thus allow them to rot, the sooner we expect to get our land in a condition to crop with grain. A very considerable part of the cultivated land of this county has never had any other manuring than this clover and gypsum, and its fertility is not diminishing." And in the discussions at the last State Fair, as reported in the Co. GENT., page 234, vol. 22, Mr. Geddes said: "There is more fertilizing matter in a good clover sod than in any twelve loads of manure you could purchase in New-York." And in Co. GENT., vol. 16, page 125, Prof. S. W. Johnson states: "It is evident, too, that when a clover lay is broken up and sown to wheat, this grain will yield well, because the decaying turf and roots are a ready source of every kind of plant food."

Leaving this part of the subject for the present, I will now proceed to consider some of the advantages of feeding large quantities of clover as hay and pasture, mainly in regard to the fertilizing matter that may be thus obtained. Though considered a very valuable crop to raise, for hay and pasture, by many, yet a large portion of grain-growing farmers do not seem to appreciate clover at anything like its full value for these purposes; but when considered as a manure-producing crop, this lack of appreciation is a great deal greater; in fact, it hardly seems to be appreciated at all. Few men seem to consider that nearly all of the fertilizing properties of the clover plant, as it is plowed under, may be returned in the manure. Johnston's Agricultural Chemistry, page 474, says: "The analysis of the dung itself proving that in passing through the body of an animal, the food parted with scarcely any of its nitrogen and saline matter," which, it is well known, constitutes the principal value of manure. Now, one of the greatest advantages of growing clover is, that it is one of the richest plants in these fertilizers grown on the farm; and that, by its production, they can be obtained a great deal easier and cheaper than in any other way. The comparative value of the manure made by feeding clover, and other crops grown in this country, as well as some idea of its real value, is seen in the following extract, which may be found in the Report of the Commissioner of Agriculture, page 320, in an article by Joseph Harris, in which it is stated: "From numerous analyses, and from actual experiments, J. B. Lawes of England, estimates the manure made by the consumption of a ton of food as follows:

Description of food.	Estimated money value of the manure from one ton of each food.
Linseed cake	$19.72
Peas	13.33
Oats	7.40
Indian corn	6.65
Barley	6.32
Clover hay	9.64
Meadow hay	6.43
Sweedish turnips	.91

This table, though but part of the one it is taken from, gives the value of the manure made by feeding the principal kinds of food fed in this country, in making manure. Mr. Harris further states, "that these figures indicate the relative value of manures made from these different foods correctly, there can be no doubt." While in regard to their real value, he says: "Many farmers in the Eastern and Middle States are now purchasing artificial manures, such as guano, fish manure, poudrette, &c., and certainly they pay for the substances which these manures contain, fully as high rates as the above estimates."

Now, in the four tons of hay and two tons of roots that we have seen may be grown on a two years' clover lay, there would be six tons, which, at $9.64 a ton, would amount to $57.84. While, if we allow three tons of hay and roots—which would not be a large allowance, for one year—for the other seeding, it will make $28.92 more, and making in all $87.76 in value in fertilizing materials—calculated, as we have seen, at the price they would cost in artificial manures—that may be realized in a six years' rotation. And all of this, in reality, costing nothing, as the use of the clover hay to feed will much more than pay all expenses of raising, while more or less, but probably considerable pasture may be had in the meantime.

Another point of considerable importance may be learned from the above table, which relates to the value of the manure that may be obtained to the acre from some of the more common crops that are grown more or less to feed in this country. Calculating the clover for two cuttings, 1½ tons for the first, and 1 ton for the second, and 1 ton for the roots, and adding one-fourth for the straw and cornstalks of the other crops, I find that one acre of each of the following crops will produce in manure:

Description of food.	Yield per acre.	Value of manure per ton.	Value of manure pr acre.
Clover hay,	3½ tons.	$9.64	$27.74
Meadow hay,	2½ do.	6.43	16.07
Corn,	40 bush.	6.65	9.97
Barley,	30 do.	6.32	5.94
Oats,	40 do.	7.40	5.91
Peas,	25 do.	13.38	12.54
Swedish turnips,	500 do.	.91	11.37

In this table in the meadow hay three-fourths of a ton is allowed for the grass roots, and the turnips are calculated at 50 pounds to the bushel. According to the above table it takes nearly 1¾ acres of meadow hay to equal one of clover, nearly 3 acres of corn, nearly 5 acres of barley and of oats, about 2¼ acre of peas and nearly 2½ acres of turnips to return the same value in manure as one acre of clover. The following table will give very near the comparative cost of producing the same amount in value of manure by each one of the kinds of food specified:

Description of food.	Acres.	Cost per acre.	Cost of food to produce equal am't of manure
Clover hay,	1	$7.44	$7.44
Meadow hay,	1¾	7.44	13.02
Corn,	3	12.50	37.50
Oats,	5	7.56	37.80
Barley,	5	7.56	37.80
Peas,	2¼	9.00	20.25
Swedish turnips,	2½	30.00	75.00
Oilcake,	28.13 lbs.	30.00 pr. ton.	42.19

The cost of the different crops is taken in part from Mr. Geddes' Survey of Onondaga Co., N. Y., except barley, which is put at the same as oats, and peas, which I have put at $1.50 over oats, and turnips, which I have calculated at the low cost of 6 cents a bushel. There was no allowance made for the use of the land in either case. The oilcake is put at the price at the mills in this section before the war. The cost of these crops and the oilcake would be at least one-third higher now.

It will hardly be necessary to say that these values of manures from different crops are probably calculated mainly in regard to the amount of nitrogen they contain, though I believe due allowance is also made for mineral matters. What the most important of these constituents are, is very fully shown in a treatise on "Farm Yard Manure," by J. B. Lawes, in the Transactions of the New-York State Ag. Society for 1862, in which, on page 274, will be found a table giving the "average composition per cent. and per ton, of the various kinds of agricultural produce," &c., which those wishing more detailed information in regard to the most valuable substances contained in these crops, may consult.

There is one point it seems to me of great importance to those that intend to buy, or are in the habit of buying guano, which is, that calculating the average amount of nitrogen in guano at 12 per cent., it will take 400 pounds of guano to contain as much nitrogen as a ton of clover hay, which, according to the table referred to, contains 56 lbs. While calculating one year's produce of clover, in hay and roots, at 3½ tons, it would take 16⅛ cwt. of guano to contain as much nitrogen as may be realized in one year's growht of clover. And to supply the nitrogen contained in the six tons of clover hay and clover roots grown in a six year's rotation, would require 2,800 lbs. of guano. Now as guano costs $60 or more a ton, every farmer can calculate for himself whether it is cheaper to buy it, or to grow clover and have the use of it to feed, as well as for manure.

Again, the great difference in the advantage of growing clover over that of growing large quantities of root crops, as practiced in England, can but strike the American farmer as very forcible. The advantage of the extra cultivation, hoeing and cleaning the land, which is much prized by the English farmer, may be realized here by planting corn one year in the rotation, say on the two-year old clover-lay, which will not only give a good chance to clean the land, but will furnish the grain needed to feed with clover hay in making beef and mutton. Hence it will be seen that by following the course here proposed, the American farmers may not only realize all the advantages secured by growing large quantities of root crops to make manure, but by raising heavy and frequent crops of clover, which contains a comparatively large amount of nitrogen, he is saved the expense of buying oil-cake and other rich nitrogenous substances for making manure, as well as of buying guano and other artificial manures. The advantage that clover has over root crops in regard to labor, will be too well understood to require anything more than is already given.

It may be objected to this course of reasoning, that clover only restores to the land what it has taken from it. If this is true, it only does what is almost always done by barn-yard manure; while I believe it is generally if not universally conceded, that the American farmer not only can, but should make his farm self-sustaining. Nay, that he can and ought to do more, and keep it constantly improving—as many farmers are doing in

all parts of the country. But while it is true that clover is produced on the farm the same as other crops, it is also true that it draws the main part of its sustenance from sources either out of the reach of other crops, or that are reached to a comparatively limited extent. So that the fertilizing matter furnished by clover for other crops, is for those crops almost a clear gain. Hence it will be seen that if there is any crop that can or will tend more strongly than any other to make American farming self-sustaining, that crop is clover; and, as I believe I have sufficiently shown, as long as we can raise good crops of clover, our land may not only be kept in its present condition, but constantly improving. This point might be strongly fortified, by quoting from the opinions and practice of many of the ablest scientific and practical farmers, did space permit. F. *Orleans Co., N. Y.*, 1864.

VENTILATORS FOR BARNS.

MESSRS. LUTHER TUCKER & SON—I am reminded by the figure of a ventilator for the use of barns, in your paper of February 4th, that I am indebted to your "Annual Register of Rural Affairs" of 1862, for my first idea of this plan, which I have already found of sufficient advantage to pay for the "Register" for the next forty years at least.

I have a barn which, with the L. attached, is over one hundred and twenty feet long. Until within two years it had no ventilation from the roof, though I had long been aware of its necessity, both for the benefit of the stock and the hay stored therein. Having one cupola on an adjoining barn, I was unwilling to incur the expense of building another, as a very ordinary cupola with blinds will cost fifty dollars in stock and labor. On seeing your plan for ventilators I was much struck with its simplicity and apparent efficiency, and immediately had four made, three for the main barn, twenty-two inches square on the inside, and one for the L., sixteen inches. As soon as they were put up, the improvement in the air of the barn was immediately noticeable; the rafter and roof boards that were ordinarily damp and sometimes wet from the condensed vapor, were at once dried, and the hay has since been sweeter and more free from must. The expense of these four ventilators, fitted and placed, including the cost of material, was thirty dollars; they are much more efficient in their operation than a cupola, as they take the air from four different parts of the barn, while a cupola operates only thoroughly near the centre. I am just completing a large barn, on which have been placed three ventilators of this description, each measuring two feet square in the clear; they are made of the best of lumber, and cost on the barn complete, at this time of high prices, twelve dollars each. In locating them on the building, I placed one in the centre of the roof, the other two one-fifth of the length of the barn from either end; this equalizes the ventilation throughout the building. These ventilators are rather ornamental than otherwise, giving a completeness of finish, and breaking a long line of roof. I would strongly recommend them to those persons who contemplate putting up buildings for the storage of cattle or hay. I have cupolas on two of my barns that I should be very glad to have replaced by the ventilators.

While on the subject of ventilation, I would remark on the importance of a change of air in the lean-to, or those parts of the barn where animals stand.

I have a barn ninety feet in length, on each side of which cows are tied. I used to be painfully impressed with the unhealthfulness of the atmosphere for man or beast, on going into the barn on a cold winter morning, when all had been tightly closed through the night. Hoping to make an improvement, I caused four boxes, twelve by twenty-four inches, to be carried up on each side of the barn, back of the cattle, against the outside walls. These opened in the floor over the lean-to, and also on the outside of the building just under the eaves; slides fitted to the lower opening regulate the draft. The plan has operated to my entire satisfaction, and with the ventilation in the roof, serves to keep the air always pure, which is no easy matter in a modern barn, containing sixty head of cattle.

One suggestion more and I have done. Much complaint is made by those having close sided or clapboarded barns, that the hay laying near the outer walls becomes damp and mouldy. I think this may be avoided by nailing strips of board on the studs a few inches apart, which will prevent the hay touching the outside. In my own case, I have, in addition to the strips, an opening in the outer wall, near the sill in each section, six inches square; this creates ventilation and keeps all dry and sweet.

Southboro, Mass. HENRY H. PETERS.

CANADIAN HORSES.

I see an inquiry for farm horses in the last number of your paper. With regard to the merits of the Vermont and Conestoga, I know but very little, but of the Canadian I can speak from experience. They are the best class of farm horses in the country, and admirably adapted to work on clay land. They are easily kept. Their average height is 14 hands—their weight is from 800 to 1,000 pounds. There are a great many of them owned in this county, but it is a poor place for any one to come to purchase, as anything in the shape of a horse commands a high price, and farmers who wish to buy generally go into St. Lawrence county or Canada. In St. Lawrence Co. they can be purchased for $150 to $200 per pair. A good stallion of that breed is worth $300. As to color, they can be found of all shades, though black and sorrel seem to predominate.

If Mr. Brady does not find out from some one else how to break that carriage horse of his bad habits, perhaps in another communication I will give him the benefit of my experience in that line. [Send it on.]

LEWIS COUNTY FARMER.

FIELDS SURROUNDED BY ORCHARDS.

EDITORS CO. GENT.—The editorial in your paper of 7th inst., on laying out orchards, leads me to suggest a plan I have adopted in a small way, and rather like, of planting around a field on the four sides, just within the fence, leaving of course a sufficiently open space where the bars are. The advantages of support to the trees when young, when the borer is playing hob with them; of avoiding the great probability of their being plowed down; and of getting the use of the ground for trees, without altogether losing it, to a certain extent by shelter improving it for other purposes, are among those that may suggest themselves to you or some of your skilled readers. H. I.

DEATH OF EDWARD G. FAILE.

DIED—At his residence, West Farms, Westchester County, on Wednesday, April 20, of pneumonia, EDWARD G. FAILE, in the 66th year of his age.

A week has not yet passed since we were startled by the foregoing announcement,—only heralded by a few hours' knowledge that Mr. FAILE's life had been suddenly endangered, and that fears of a fatal termination had begun to be entertained. On the grounds of a charitable institution, in which he was warmly interested—an interest manifested not only in the benevolence of gifts but also in that of personal exertion—he had been spending some time, on the morning of the 13th we believe, in trimming the trees and otherwise supervising out-door affairs; and, becoming overheated, took a cold resulting in the disease which, only seven days later, carried him beyond the region of earthly culture and the farther exercise of earthly charity.

Mr. FAILE was for a long period actively engaged in business in New-York, although while still a young man, the injurious effects of city confinement, together with a natural taste for rural life, led him to seek a home where he had since resided, in Westchester. At length the country became uppermost in his thoughts; and while, from his undeviating probity and untiring performance of duty in whatever positions he accepted, he had been selected from time to time for various posts of important trust, still he was fonder than all else of agricultural pursuits, and appreciated as only those of deep insight and comprehensive views can fully do, the great fact that the basis of all our commercial prosperity and the foundation of our national wealth, are where the farmer sows the seed and gathers in the harvest. Previous to, as well as during, his official connection with the State Agricultural Society, his active efforts to create an interest in its operations among the merchants of the city, resulted in large and frequent additions to its roll of Life Members; and, in conversations since the breaking out of the present war particularly, he had often urged that they would only be promoting their own thrift by encouraging wherever the opportunity is offered, every means by which the improvement of our agriculture can be advanced and its productiveness rendered greater and more profitable. His only complaint was that even the friends of Agriculture themselves do not take a high enough ground when its claims are presented; and whenever the question should arise as to the propriety of seeking farther Legislative aid in carrying out the objects of the State Society, he held the view that any such appropriation of public money could only be properly regarded as an investment in the behalf of the State itself, certain to yield an early and abundant return.

But he was not one who would base the success of any undertaking upon extraneous support or aid. The principles which governed him in private life, were with him in the board of management, whether of railroad, or bank, or agricultural society, and he would never favor corporate action of a tone less pure and elevated, nor exertions less faithful and constant, than in his own dealings as a man of unstained integrity and honor. Singularly unostentatious, and sincerely modest in his estimate of himself, even with nearly two score years of more or less direct experience in country life, he hesitated long before he would consent to serve as President of the State Agricultural Society; and when at last his friends prevailed and his election was declared at our Annual Meeting in 1863, the mention of his name, for the first and only time within the recollection of the writer, in connection with that office, was greeted by the spontaneous and hearty applause of all who were present. Those who knew Mr. FAILE need not be told how conscientiously and faithfully he applied himself to the duties of the place, nor of his determination to continue as active and earnest on the board during the five years to come of his *ex officio* membership, as he had previously been. At the last meeting, in March, he was not present—owing to the miscarriage in the mail of the notice of its appointment; and he was not a little chagrined that he should even seem, through this accident, to have neglected what he regarded as an imperative engagement. During the past year, ascertaining that the Society required a new flag for use at its exhibitions, becaused a large and expensive one to be made, which he presented on the sole condition that nothing should be said about it, and we doubt if the Board, excepting a few of the officers immediately concerned, were generally aware of the fact. These incidents we should not mention, except as simple illustrations, in matters of comparatively smaller consequence, of characteristic traits in the life and habits of a departed friend.

—— We cannot yet realize that he is gone from among us forever. Although somewhat advanced in years, there seemed every reason to hope that the day of parting might yet be long in the distant future. With all his Scotch firmness of principle and opinion, which those who differed from him were compelled to respect and admire, Mr. FAILE united a warm heart and a hand never more industriously employed than when in the service of others. To those who came into intimate intercourse with him, his memory is endeared by the warmest ties of affection and esteem. Of the sadness and suddenness of this blow to them, we cannot trust ourselves to speak. Nor can we yet prepare a fitting tribute to his virtuous and useful career, and to the services he had rendered and was still rendering in the cause of Agriculture;—to his sound judgment, whether in the walks of commerce or on the farm; to his candor and fidelity, in friendship, as well as in business; to his love of country, which during the rebellion, had been for him, next to his religion, the supreme and single consideration of thought and action; to his benevolent interest in, and encouragement of, every good work; to his undisguised rigidness for himself, and, except in matters of principle and honor, his leniency for the short-comings of others; to his constant tenderness and devotion in every domestic relation, where his loss occasions a void that no human sympathies can fill. But we look beyond the portals of Time, where the seeds of truth and charity and faith, planted and nurtured in the trial-field of earth, yield their full harvest and final reward; and we trust the promise of the Great Master, that "as he has sown, so also shall he reap."

Wool Growers Awake. — The wool growers of Addison Co., Vt., have just sent on to Congress a petition twenty-five feet in length, with columns of names, asking for increased duties on wool.

PROTECTION TO AMERICAN WOOL.

MESSRS. EDITORS—In the revision of the tariff by the present Congress, it is hoped by the large body of wool-growers in the North and West, that this vital interest will not, as has usually been the case, be almost wholly ignored. The wool-growers of this country are widely scattered; comparatively an isolated class, they cannot as a body act in concert to make their influence felt upon the legislation of Congress, and thus their interests stand no chance in a competition for protection with the various manufacturing interests, which are ever and always ready to combine and make their efforts tell to their advantage whenever the tariff question comes up for a revision.

In these times of high taxation on almost every home production, why should foreign wool be left so free as to cause a large part of the domestic to lay unsold and uncalled for in the hands of the growers, or in the commission houses at the marts of trade? The answer of the free-trader will be: "Lower your prices so as to undersell the foreign article, and then your wool will be wanted." Yes, gentlemen, this is true; but like the frogs in the fable, though it might be fun for you, it would be death to us. Wool is now the lowest article in the market, except flour and wheat. But says the manufacturer, "we want the protection; we pay the largest amount of taxes." True, the taxes are directly assessed to you, but who reimburses you? In the end they come out of the pockets of the consumer, and the farmers and wool-growers are by far the greatest class of consumers.

At the present high prices of farm labor, with the cost of boarding that labor, and the enormous direct and indirect taxation to which they are subjected, wool cannot be grown without a loss at present prices. The manufacturers of woollen fabrics for the last three years have realized war prices for their goods. They have increased their gains vastly beyond that of any other period of their existence in this country; untold dividends with them have been the order of the day. Of this we do not complain; they have been shrewd enough to see to it that the tariff should be shaped to suit their interests, and the low price of foreign wool, with the evasions practiced to get it in under the lowest rate, has enabled them to fix the price of the home production. They do no more nor less than others would do under like circumstances. It is human nature—a law of trade. When they cannot get a duty high enough on domestic goods to suit them, they go for a low duty on foreign wool—a mere nominal tax on the lowest grades, knowing that the importers will quickly anticipate their wants, and learn to so increase the weight of fine qualities as to get the advantage of the lowest duty. Millions of pounds of wool, of qualities that come in direct competition with our medium grades, are annually imported in this way.

Now what we complain of is, that our wise men in Congress should suffer this inequality to exist. It is an invidious distinction between the raw material and the manufactured article, that never should be tolerated or suffered to remain in the tariff statutes. The farmers are the bone and sinew, the head and shoulders, the heart and soul of the country,—as loyal as the most loyal—as patriotic as patriotism itself can be,—though I repeat, they never have, do not, nor cannot, from the nature of things that surround them, act in concert with an eye single to their pecuniary interests in these affairs of tariff legislation that other interests do, but I rejoice to see that a movement in the Middle and Western States is begun. Let the East follow suit, particularly Vermont, New-Hampshire, and Western Massachusetts. Let this Congress be importuned until they know and believe that the farmers have rights worthy of their consideration.

Springfield, Vt., April 14, 1864. J. W. C.

REMEDY FOR FOOT-ROT IN SHEEP.

Is there any effectual remeny for foot-rot in sheep? My ewes and lambs are badly affected with this terrible disease, and are getting rapidly worse. I have used the vitriols abundantly with no effect, and am now going to confine them over nights on fresh-slacked lime, but with not much hope of success in effecting a cure. N. LINTON.

Chester Co., Penn.

A Maryland correspondent of the Co. GENT. says: "I am using for foot-rot in sheep—my flock being badly affected with that disease this season—a composition composed of

Corrosive sublimate	2 drs.
Venice turpentine	1 oz
Lard	1 lb.

Dissolve the corrosive sublimate in half a tea-cup of warm water, and incorporate this solution and the turpentine with the lard cold—clean the part affected, and apply this paste. It is a powerful remedy for foot-rot. It is a poison, and should be carefully handled."

The Irish Farmer's Gazette gives the following simple remedy: Pare the foot, removing all the jagged and loose bits of horn, and anoint it with butyr of antimony. Repeat it every second or third day, according as the feet are more or less bad.

OIL FOR DEAFNESS

Take the common Johnswort, which grows upon poor barren soils of New-England (a plant of very strong properties) when in full bloom; dip the blossoms into pure sweet oil—olive oil. Hang up the herbs, blossoms down. Catch the drippings in dishes; put this up in one-fourth ounce vials, or less; drop two drops well down into each ear. This may be applied weekly until relief comes and the hearing is restored.

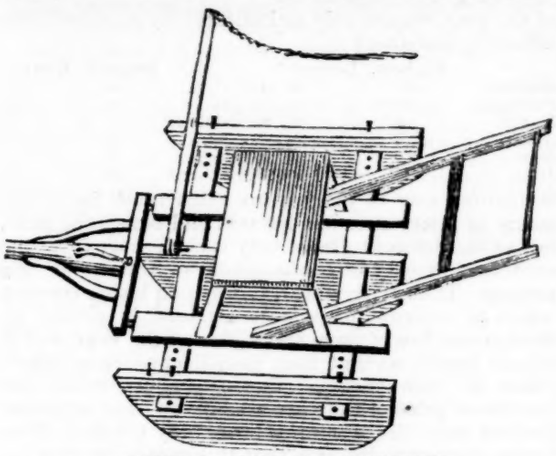
ANOTHER REMEDY.—I was speaking of a slight deafness, and a constant ringing noise in my ears, which had annoyed me several months. The person replied: "My physician tells me that if you will take a piece of fat smoked bacon, cut it down to the shape of a small goosequill, 1¼ inches in length—around the outer end wind a little fresh sheep's wool; dip the inner and smaller end into an oil expressed from the New-England hickory nut; insert one in each ear, and you will have immediate relief."

I was rejoiced when I tried the remedy, for the noises in my ears were instantly silenced. Since then I have had two slight attacks, which the same application instantly removed. It is now three years since I was entirely cured. SOL. W. JEWETT.

CURE FOR BURNS.

Mr. J. MILLER of Schodack Center, sends the following recipe to the COUNTRY GENTLEMAN, as being a *sure cure* for burns, scalds, or frost bites, as tested by him in the experience of many years:

1 large spoonful of tar.
1 do. do. sulphur.
1 drachm verdigris.
1 pound lard.



TODD'S CORN MARKER.

There have been a great many different corn-ground markers recommended and illustrated, some of which were very good and some were very awkward implements. But the accompanying illustration represents the best kind that I have ever met with, and I never saw only this one, which was made with my own hands.

The runners should be about four feet long, and eight or ten inches wide. It will be perceived that the two outside runners can be moved outwards or inwards on the slats, while the middle runner is pinned fast to the slats. The gauge is made of an elastic pole, with a piece of chain attached to one end, which drags in the mark made by the outside runner. It is attached to the middle runner, and can be placed on either side of the marker.

By having it drawn by two horses, the driver will be able to make much straighter rows—which is a very important consideration—than if only one horse were employed to draw it.

By having it made with a seat, aged men, who would not be able to walk after a marker, can do all the marking, and perhaps they would make straighter rows than many of our young men could.

I think that every good farmer will pronounce this an excellent corn-ground marker. S. E. Todd.

FLAX RAISING.

Messrs. Editors—I have been thinking some time of sending you my experience in flax raising for the past year, but have put it off from time to time. To-day being rainy, I conclude to briefly give it.

Last March (a year ago) I sent to the town of Petersburgh, Rennsselaer Co., N. Y., for a barrel of the best flax seed—paid $10.75 delivered in Troy, and adding transportation brought my seed to some $12.55.

Being advised to sow on the very best land I had, I selected some four acres of first quality corn land—plowed nine inches deep—harrowed until it looked like a garden, then sowed my seed at the rate of three pecks to the acre—harrowed again, and picked up every little thing that would prevent a single seed from coming up, and finished by rolling the whole down, and left it, perfectly satisfied that from that piece of land I should reap a bountiful crop, but luck it seems was against me.

I intended to set my reaper very low, and secure the straw with but a trifle lost, but about the time of blossoming winds and rain beat down and twisted the already over-grown stuff, so that when I came to the harvesting I was obliged to pull every straw, and Messrs. Editors, it was *back-aching* business, I assure you. My hired man was drafted and taken away just when I wanted him most, and labor being scarce, I was obliged to take it alone, with the exception of two days that a neighbor *through pity* came to be company in my misery.

I beat off the seed at odd times through the winter, (the crop having been placed under shelter in good condition,) and after cleaning it as well as I could, and throwing over a large quantity of black, damaged seed, I sold $37.62 worth, by hauling it thirteen miles.

A portion of the straw I have rotted, and from the way that turns out the *tow*, I conclude my flax crop will not be a *remunerating one*. At any rate I have concluded to speculate no more in flax. D. B. Waite.

Springwater, N. Y.

MAKING BUTTER IN WINTER.

Messrs. Editors—I have seen and read much in your papers about butter-making in winter, but think I have a better way than any I have yet seen. I make as much butter in winter, and as rich color as in the best butter times of summer. I stable my cows all cold and stormy days, (of course nights;) have plenty of water in the yard; feed them three times a day and grain once, which is done in the morning after they have eaten their other fodder. I feed ground black-eye marrowfat peas, scalded with hot water and stand three or four hours before feeding. I feed about two quarts at a time, mixed with hot water about as thick as thick gruel, and after standing three or four hours it will be as thick as corn meal pudding, and measure four quarts. Peas fed this way, especially marrowfats, are worth double the amount of any other grain you can feed, and will make cows give more milk. Well, I have told you the feeding and care of the gentlemens' department, and will now say a little about the care and management of the cream and milk in the ladies' department, which is quite as essential as any. Strain your milk, and not fill your pans more than half full, for if filled it takes too long to get sour. Then set them on a stove with a slow fire, and heat them well through; the cream will rise and the pans will be fit to skim two days sooner than though they were set away cold. The cream will rise quick and sweet; therefore you will have rich and sweet butter. Generally the cream rises quick, and is not sour enough to churn, but will sour enough in your cream pail by churning time. Before you churn set your pail by the stove and heat it well through, and the butter will come half an hour sooner than though it was churned cold; and before churning scald your churn with hot water. I have tried this way of making butter until I am confident there is no better way. E. C. K.

Cape Vincent, N. Y.

Remedy for Hide-Bound Horses.

Hide-bound horses are soon brought into good condition by careful grooming, a handful of hickory ashes and salt every third day, and yellow poplar poles or brush placed within their reach, so they can have access to the bark at their pleasure. Buckeye.

Average Prices o Breadstuffs for 39 Years.

The last Report of the Secretary of the Treasury, for the year ending June 30, 1863, included among its supplementary documents a full table of Prices at New-York, of staple articles of produce and trade for the thirty-nine years, 1825–1863 inclusive. The complete analysis of this table would require more labor and occupy greater space than we could profitably devote to the subject, although perhaps not without evolving some interesting and useful results. But an examination of the figures as regards the principal grains, for such a period of time, may be entered into without the fear of exhausting our readers' patience, and serves to throw some light upon the general returns obtained by the farmer for his produce, as well as the changes in its market value at different periods of the year.

The average value per bushel at New-York for thirty-nine years, of wheat, rye, oats, and Indian corn, we calculate in periods of ten years, and for the whole time embraced, as follows:

Av. of 10 yrs.	Wheat.	Rye.	Oats.	Corn.
1825—'34,.	$1.09@ 1.12½	67½@69½	34½@40	62 @64¾
1835—'44,.	1.29¾@1.35¾	82 @83½	37¾@45½	73½@75¾
1845—'54,	1.26½@1.32¾	79½@82½	43 @44½	67½@69
Av. of 9 yrs.				
1855—'63,.	1.41 @1.50½	80⅛@83½	44½@45¾	69 @71¾
Av. of 39 yrs.				
1825—'63,.	1.30 @1.36¼	79½@81½	41 @44¾	69⅝@72⅛

This shows a gradual and nearly regular advance from decade to decade, with the single exception of that embraced between 1835 and 1844, in which, through an altogether abnormal condition of affairs, there were two or three years of great scarcity. The increase in average value, between the first of these periods and the last, was about 35 cents per bushel on wheat, 14 on rye, and 8 cents each on oats and Indian corn.

By comparison with a statement of the average value of wheat in England for 20 years past, published in this paper of Feb. 18, it will be seen how our market for it compares with that of the English farmer. The average from 1844 to 1854 there, was $1.54 per bushel, here $1.32; from 1854 to 1863, there $1.77, here $1.50—showing a smaller difference than many suppose, and also that the price here has probably advanced so much more rapidly than that of either of the other grains, owing to the greater value which attaches to wheat for exportation.

The greater advance in wheat might also be accounted for on the supposition that, notwithstanding the great extension of its culture since the West was fairly opened to the farmer, the product of the country had still failed to increase in proportion to increased population, during 30 or 40 years past. Such we do not think, however, to be the case; the census returns show that the crop of wheat in 1840 was 5⅓ bushels to each inhabitant, and in 1860 but little short of 5¼ bushels—a slight increase. Here we have not the figures to go back farther than 1840.

The fluctuations in the value of the grains from month to month, might be studied to some advantage if we could arrive at any definite conclusion as regards the season of the year when prices will probably culminate, and when therefore it would be better to sell than to hold over. Taking all the grains together we find that for the 39 years referred to, wheat, rye, oats and corn, stood at the highest and lowest quotations of the year, respectively as indicated by months in the following ststement:

	Highest.	Lowest.		Highest.	Lowest.
January, ...	28	16	July, ...	8	17
February, ...	20	5	August, ...	6	20
March, ...	6	10	September,....	9	15
April, ...	3	22	October,.....	8	12
May, ...	6	10	November, ...	9	8
June,.....	17	10	December, ...	37	10

Something may be judged from this table as to the course of prices after one harvest and before the next, but as the different grains vary considerably from one another they may better be taken separately for this purpose. Thus, with wheat, in July just before the crop comes in, extreme prices were attained in eleven instances—in five of them the *highest* of the year, and in six the *lowest*—so that that month appears to afford about an even chance. During August, while the maximum price of the year was in no case attained, the fact that the minimum was only touched three times, appears to indicate that this cannot be very far from an averge month. Following the year through in this way, we find September with four minimum to two maximum; October with eight to one, and then the chances take a sudden turn, November showing the same result as September, and December standing two to ten; January follows with a tie, and so on. In other words, maximum prices of wheat predominated during the 39 years, in the following months, and with relative frequency in the order named: December, February,* May, June and March; and minimum prices in October, July, September, November and August.† In Rye the highest prices prevailed in December, January, February, June and October; the lowest in April,† July, August, September, May,† and March, with November as a tie. The other grains stood:

OATS.		CORN.	
Maximum.	*Minimum.*	*Maximum.*	*Minimum.*
January.	August.	December.	August.
December.	September.	January.	March.†
February.	April.	February.	April.
June.	May.	November.	July.
March.	July.	September.	May.
November (tie.)	October.†	October.	June (tie.)

Wheat reached a higher average in the year 1855 ($2.46) than in any other of the thirty-nine; 1854 is second, $2.25; and these are the only years in which the average was over $2. In 1836 it was $1.80; 1837, $1.85; in 1838, $1.97; in 1856, $1.83, and in 1863, $1.71. The highest average of Indian corn was in 1837, $1.08; in 1855, $1; in 1836, 96 cents, and in 1863, 90 cents.

Butter averaged 14½ to 18⅛ cents per pound, as to quality, during the 39 years, and *cheese* from 6½ to 8½. The former was highest in 1856, '57 and '63, when the best averaged full 24 cents, and the latter in 1863, when the best was 13¾ against 10½ as the highest previously—a point only reached in 1837, '54, '55, & '57.

The high prices of 1854 and 1855 were mainly occasioned by the Crimean war, which created a great demand for American breadstuffs. For the general welfare of the community, we cannot be too thankful that since the outbreak of the present war among ourselves, Providence has thus far kindly granted us such an abundance as to preclude famine-rates for the staples of human consumption. At the same time prices have been high enough to repay the farmer's labor. And it is curious to turn back to the record of 1843, when prime beef sold in New-York for $2.75 per barrel; mess pork at $7.50; hams at 3 and 4 cents a pound; sugar the same, with 5 cents for refined; tobacco 2 to 3 cents a pound, coffee 6 and 7 cents, cotton 5 and 6 cents, &c. It is also encouraging in these days of "Five Twenties," "Ten Forties," and other signs of government expenditure, to be reminded that a debt of $127,000,000 owed by a population of only eight millions and a half, in 1816, was *totally extinguished in eighteen years.*

* In the months thus indicated there is no case in which a minimum price was touched.

† In these months there was no case of a maximum.

State Fair---Prospects in Western New-York.

Arrangements were last week made complete for the holding of the next State Fair at the city of ROCHESTER, on the 20th to 23d of September next. It need scarcely be added that no site in the State is more favorably located for a general exhibition in all departments embraced. The holding of the American Pomological Society's Meeting at the same place during the previous week will call together a large number of the leading Horticulturists of the country, most of whom, with their samples of fruit, will be likely to remain over for the State Fair, while Rochester and its vicinity alone are able to render this part of the Show unusually attractive. It is to be hoped that our breeders of improved stock will be encouraged by the increasing demand, to take advantage of this opportunity of exhibiting their herds and flocks. The Wool Growers' Convention, if it is held there, as now proposed, should attract the attendance of the sheep men of the State, and they should especially be prepared to do their best in case of competition from abroad. We trust that our Implement dealers and manufacturers will not allow a pressure of business to prevent their exhibiting; the time and expense will be well laid out, even if at some temporary inconvenience. As to the attendance of the public, Rochester has a record which forbids any doubt on this score. In 1851, probably a larger number were present there than at any other exhibition of the Society, before or since; while in 1862, notwithstanding constantly unfavorable weather, and a depression in the public mind far greater than now exists, the attendance was most satisfactory and encouraging. We trust the experience of 1851 may be this year repeated, both as regards weather and visitors.

— While at Rochester last week we were pleased to learn that the promise of fruit for the present season is so good. Wet weather has rendered the spring somewhat backward, and was causing the rot of the spring grain already sown, in some cases. But it is not too late, in such, to re-seed, and with the present promise of brighter skies, good returns may yet be obtained. The winter and spring have been such as to show, to great advantage, the benefits of thorough drainage; winter grain on wet lands has been badly winter killed, and on the train from Rochester to Geneva the young wheat within sight had evidently suffered much. About Geneva this is also true, but some fields are looking well, while the prospect for others is not now quite as bad as was at one time threatened.

We learn from Mr. GEDDES, near Syracuse, that about him wheat and grass are looking better than at the same time for several years previously. On the 4th, barley was beginning to show over the ground a little, and farm work was well along for the season. The weather had been favorable for wheat and grass —wet, with the thermometer at about 44° in the morning, rising to 50° and once to 55° at mid-day. Mr. G. says that a field of his, never manured, except by clover and plaster, during the 65 years it has now been producing wheat, promises a better crop this year than he has ever seen before. A heavy crop of hay was taken from it last year, and it was plowed but once for the wheat.

It is Mr. GEDDES' theory that wheat that is *strong* on the 1st of May, is nearly safe from rust or insects, and has only the chances of a wet harvest against a large crop—that rust attacks wheat that is small in the spring and that grows fast in June, then overdoing itself, so to speak, to make up for lost time, and giving on the 1st of July a promise, but rarely fulfilled, of a good yield. How far does this view, which, indeed, appears reasonable as a theory, accord with the observation and experience of our readers?

The increasing attention paid to fruit, and the heavy losses during the severe weather of the past winter at the West, are operating to tax the resources of the Rochester and Geneva nurseries to their utmost extent. The Central Railroad, with its immense facilities for transportation, has really been overburdened for weeks past, and in one instance, at least, craved the grace of the Rochester nurserymen for a few days' delay until the accumulated shipments could be started off. One opens his eyes to find a single establishment using more than half a million feet of pine boards in its packing boxes, and bringing the moss for packing by boatloads down the Genesee Valley Canal.

The Short-Horn Herd at White Springs Farm, to the catalogue of which we so lately referred, is well out of the winter, and fully equals the expectations of the most sanguine visitor. Mr. SHELDON'S customers have carried off a fair share of all that he has been willing to offer. But his Excellency the Secretary of War, by prohibiting the export of all live stock across the frontier of the British Provinces, is keeping a fine young bull, sold to a Canada gentleman some time ago, an unwilling prisoner in "the land of the free"—intimating in reply to an urgent request through the office of the Governor General and the British Minister at Washington, for a permit to ship him, that the exigencies of the country are such as to render it quite impossible to relax the orders of the War Office, even for a single Short-Horn. Cannot Mr. Stanton be persuaded to attend the State Fair, and personally convince himself both of the character of our stock, and as to the probability of its being a serious injury to the country that our Canada friends should now and then avail themselves of the skill of our best breeders? Seriously, however, as necessary and proper as the rule against the export of animals for slaughter may be, we can see no reason nor ground for this remarkable stringency in the case of a breeding bull.

ROOT CROPS.

MESSRS. EDITORS—Herewith I send you a statement of my carrot and turnip crop of last year, as lately promised you in Albany, premising that long continued absence from home has prevented my sending it sooner.

On the same acre from which the crop was harvested in 1862, and with very nearly the same treatment, I took last fall as follows:

Carrots,	667	bushels.
Mangolds,	97	do.
White Turnips,	200	do.

A very severe drouth occurred in the spring, which lessened the yield considerably. E. N. WILCOX.

SOAP-SUDS FOR TOBACCO BEDS.

I find there is nothing better for tobacco seed beds than soap-suds, both before and after planting. The suds should be saved from the washing, and kept and used as needed. Besides answering the place of water and manure, there is something about it which keeps the ground from cracking, and renders it moist and loose. E. A. KING.

ONION SETS.

A correspondent in the COUNTRY GENTLEMAN of April 21st, wishes to be informed the proper time and method of sowing onion seed for sets, whether in drills or broadcast? The answer to the questions of "J. C." should in some degree be in reference to his location, which he does not give. The climate of New-England, and Northern States generally, is favorable to growth of the onion, and it will perfectly mature from the seed the first season. In this section sets are much less extensively planted than in the more southern portions of the country, where the onion will not mature the first season from the seed. In the Northern States then, sets or small onions are planted for the purpose of raising "rareripe" onions, which are fit for the table some weeks before those that are grown from seed. Among the seedlings grown here, there is generally small onions sufficient for sets for the following spring.

In the more southern portions of the country, take for instance the meridian of Kentucky, and the onion requires two years to arrive at maturity. Two kinds of sets are planted by gardeners; one, the "Top-onion,"—this is the variety that produces sets or small onions on the top. These are very extensively grown about Vevay, in Indiana, for the southern market. Many thousands of bushels are annually grown and shipped from that place. In other neighborhoods the sets of the common onion are largely grown for market. In order to avoid excessive labor in weeding so small plants as the onion, the seeds are planted as early in the spring as the ground is in a proper condition to work, say the last of February or the beginning of March. The ground, of course, must be made fine and moderately rich, with manure as free from wild seeds as possible. Broad, shallow drills are then made, say twelve inches apart. In these drills the seeds are scattered quite thick, nearly covering a space two inches in width. The drills are then lightly covered with earth. Nothing more is necessary but to keep the rows hoed out and the weeds from among the young plants, and by July the sets are ready to harvest. Being planted thick the sets are small; the smaller the better, say from the size of a pea to that of a hickory-nut. The smallest sets will make full size onions the following season, and from being small no centre or seed-stalk is produced, which is detrimental to our "rareripe" onions. These sets, and the "top onions," are generally retailed from $2.50 to $6 per bushel, according to the supply. The trade in them is often very large.

The inquiry may be made, why will not the onion in the rich soil of the South and West, mature in a single season from the seed? The answer is, the climate is too warm. No root crops succeed so well there as in the cooler climate of New-England and the Canadas. Hence early planting of all root crops is indispensable to tolerable success. Onions in February, if the ground can be worked. Potatoes are also, and for the same reason, planted early, and the best crops are matured in July. The growth of all root crops is checked by the hot weather if not cut short, for want of rain, which is very common.

In the more favorable locations for the onion, the seeds for sets may be sown late, to avoid their becoming too large. Yet late sowing will increase the labor of weeding. But very thick sowing will in some measure check the weeds, and the sets will be of more desirable size. H. P. B.

Light Crops and Abundant Manuring.

Farmers frequently complain that they have been greatly disappointed in the quantity of grain per acre, after having applied such a liberal dressing of barn-yard manure, and they often inquire why it should be so, even when a soil is well drained and has not been impoverished by a long succession of exhausting crops.

As a general rule this subject may be explained in the following manner: A liberal dressing of manure that has been made by animals that have consumed little or no coarse grain during the foddering season, will increase the quantity of grain but little. When a farmer has fattened a good lot of mutton or beef on coarse grain and oil meal, and has taken proper care of the manure, we never hear him complain that he manured highly and harvested a light crop of grain. The disappointment usually is in harvesting much more than was anticipated when manure is used which was made from fattening animals.

If we use the manure of milch cows, for example, which have subsisted on nothing but hay and roots, and a little buckwheat bran, their droppings will produce good crops of hay, or of cornstalks; but the manure will be lacking in that material which will produce large kernels.

Then there is another weighty consideration on this point. The manure may have been of the most excellent quality once, but by having been exposed to storms and sunshine in the yard, or by having been spread in the field for several hot and drying days in the spring, a large proportion of the fertilizing material has evaporated.

Although chemists assure us that there is a large quantity of oil in a ton of straw, still if farmers manure their land with it, that oil, which many suppose will increase the amount of grain, only promotes a good growth of straw.

In the spring of 1863 I purchased a lot of manure—almost pure ordure—which was made by milch cows. The Indian corn and potatoes which grew where that manure was applied, were unusually small, while the stalks and tops were unusually large. Many of the hills of potato tops, when stretched up, would reach six or eight inches higher than my head—five feet nine inches. If we manure with grain, we shall get grain in return. If we manure with grass, hay and straw, we need not expect a very abundant crop of grain. I think farmers will find this correct the world over. S. EDWARDS TODD.

How I Stopped my Grapevines from Bleeding.

I was inconsiderate enough to cut off, in order to shorten, two main canes of an Isabella vine in my yard lately, which bled profusely. I tried various expedients to stop them, among others burning and charring the ends of the vines, but all to no purpose; drop, drop, drop they would and did, for several days. Finally I took some beeswax and tallow and melted together, then cut off a piece of an old India rubber shoe, and wrapped or folded it over the bleeding vine, having cut off the charred end first, putting the wax-tallow so as to press it upon the end of the vine. I then fastened it with strong twine, wrapping and drawing the twine so tight that not a drop of the sap could escape from it. This proved effectual, and would have done so, I think, without the tallow, simply because the sap could not escape. N. SARGENT.

Will it Pay a Fair Price for Corn to Use it in Fattening Pork?

There are a few assert that it will, while many say it will not. The many say it will cost a shilling a pound to fatten their own pork, and while they can buy it for half that price it is poor economy to feed.

From observation and experience, I am led to believe that when pork is six cents a pound, corn *may* be made to turn a dollar per bushel. Whether it *will*, or whether it will bring only fifty cents, depends upon several circumstances, among the most prominent of which is the care given to the business and the manner in which it is performed.

Much depends also upon the character and age of the stock. That an improved stock will pay better than an inferior one, it is unnecessary to assert, but it has been a question whether it pays better to fatten pigs or grown hogs. I will give a few reasons why I think the profit is in favor of *pigs*. If hogs are kept till one or more years of age for the purpose of feeding, existence must be supported and the waste of the system supplied for the time without a compensating improvement, a loss to be compensated by some future gain. Again, the early life of an animal is the natural period of growth, and it may be supposed that then the animal receives more of the nutritive matter of the grain than after it has arrived at maturity, especially that which develops muscle.

Thus far theory, now for experience. Several years since I taught school in a village in New-Jersey. Having a cow I resolved to make my own pork, and purchased a pig littered in February; I paid what was thought a large price—$2—for it, at six weeks of age, for the sake of getting one which suited me. I purchased all the meal I used of a miller who sent several children to school. Hence when I settled with him in the autumn, I could decide what it cost. I charged all this meal to the pig, and $5 for the refuse milk of the cow. From this meal charged to the pig, we used a little for the family, and some to feed chickens, of which I raised a few.

The pig was slaughtered about the 1st of December, being nearly ten months old, and weighed 370 lbs. The meal cost $13.75, making the pork cost nearly 3¾ cents per pound; add $5 for the milk, and its cost is nearly 5¼ cents. I do not add the cost of the pig, for I sold two loads of manure for $2, which if I had land of my own, would have been worth to me twice that sum. Each morning and evening, when there was a fire for cooking our meals, a kettle of water was boiled for scalding the feed for the pig, which was fed regularly all it would eat clean, but never to satiety. Into the pen was thrown all refuse vegetable matter, so that the pig was always clean, and sufficient loam that the pen never offended the nostrils. Ought I not to have been satisfied with the experience? Friends, go and do likewise. You can if you will.

The same autumn a neighbor tried to sell ten pigs for a dollar each. I urged him to feed them. He thought it would not turn fifty cents per bushel for his corn. After making estimates of the quantity of meal they would consume daily, &c., he shut them up the next day. When he slaughtered them they were sold for $84, and he had fed sixty-three bushels corn.

The statement may be made thus:

63 bushels corn, at $1,	$63.00
10 pigs, at $1,	10.00
Total,	$73.00

leaving $11 for trouble or profit. He said he made 10 large loads of manure, worth $10 more.

Now, considering the fact that a farmer's profits consist of these small items, was not this small speculation a good one, especially when we consider that he received 33 per cent. more for his grain than he would have done after carting it twelve miles to market. If you think these loose thoughts can be made useful in leading farmers to think more, make more manure, and larger profits, they are at your disposal.

H. H. N.*

Mr. Winne's System of Feeding Sheep.

MESSRS. TUCKER—Being always desirous to promote the interests of our fraternity, I will endeavor to comply with your request and the request of your correspondent, Mr. Rieff of Pottstown, Penn. He in the first place inquires how much corn, cake, meal or grain I feed my large Canada sheep per day, with hay or straw, and then is somewhat surprised that I can feed 675 sheep and sell 43 tons of hay off of a farm of 100 acres. He then goes on to say how much corn, hay and straw it would take him to keep that number in feeding condition, and winds up with a request to know the system I pursue and my mode of feeding from first to last.

As regards the quantity of grain I feed my sheep per day, I will say that I always commence with half a pint of grain, or grain and meal, and increase moderately until in about two weeks I get them up to one quart per day. I also feed them hay, morning and night, and straw and roots at noon. It is very seldom that I feed over one quart, although I sometimes, with a lot of 200 or 250 pound sheep, (as my sheep are always sized,) give them a quart and a pint per day, and always find that the better I feed and care for them, the better they grow and pay. Thus I have several times had some of my best sheep gain from 12 to 20 pounds per head per month of 30 days.

But the great secret with me has always been to start right; that is, to buy prime animals, and then take good care of them, and I will now say that there are three classes of men that will always be unfortunate in sheep feeding. The first class are those that instead of seeing after them themselves, trust them altogether with MICHAEL or PAT; the second are those that depend on buying and getting their grain about as fast as they want it; and the third are those that have plenty of feed, but look upon every handful of corn meal they feed, and fear that they will never get their money back again for it.

As regards the hay I feed, I will say that I give them morning and night all they will eat and eat clean, as I never allow them to waste, and I know that my sheep have not wasted 200 pounds of hay this winter. I calculated when I commenced feeding that I had about 55 tons of hay on hand, besides what I had sold. My fat sheep have been fed over three months, besides a flock of breeding sheep, three cows, four horses, and I have plenty of hay yet, and some to sell, and the buyers here are tempting us with $30 per ton for it.

The way I get so much hay to feed and sell off my 100 acre farm is simply this: Work it well and give it plenty of manure.

Now in conclusion I would recommend unfortunate sheep feeders to look very closely and see if there is not a screw loose somewhere—if they have, in the first place, proper conveniences; then good feeding boxes; then regularity and quietness in feeding, and plenty of it, and lastly, plenty of salt, water, litter, &c.

Bethlehem Center, Albany Co. JURIAN WINNE.

HORTICULTURAL NOTES.

Quince Stocks from Cuttings.

Since the expense of importing quince stocks from France has more than doubled during the present war, we have frequent inquiries as to the best and most certain mode of raising them in this country. Although the season has passed, preparations may be made in time for another year. The mode of raising stocks from stools, so commonly practiced in some localities, does not appear to be the best, nor to furnish such good stocks as well-rooted cuttings. We have always succeeded best by taking off the cuttings late in autumn and planting them immediately, or before they are much exposed to the air, or have become in the least degree shrunken or dried.

The character of the soil is of much importance. One which can be made very compact about them seems to be indispensable. A sandy loam or a clay loam in which there is considerable sand, appears to be best. A gravelly soil will not answer. Doubtless, however, by immersing the cuttings in thick mud the difficulty of an improper soil might in some degree be obviated; and this process would be useful in every instance. Make the trench nearly as deep as the length of the cutting, and smooth and nearly vertical on one side. Set the cuttings closely along this side. Fill the trench by successively treading the earth around the cuttings, so as to leave no instertices. They should not project more than an inch or two above the surface, and it is better to cut them off in an even row after they are set. Then cover the surface of the ground with about an inch and a half of finely pulverized fresh manure. This will protect them from freezing during winter, and serve as a mulch to keep the ground moist the following summer. If they do well, at least one-half of them will grow and make fine stocks for setting out in the nursery rows the following spring. Some successful cultivators prefer to plant them early in spring, which will do well if they have been removed early in winter and well kept until the time of planting, so as to form a callus—not forgetting to dip them in mud before setting out. It is always best to secure them before the intense cold of winter sets in, as the effect of several degrees below zero is to chill them and retard their vigor another season.

Raising Plants from Cuttings.

Peter Henderson of Jersey City, gives in the *Agriculturist* a simple mode of raising plants from cuttings, such as roses, verbenas, fuchsias, carnations, &c., adapted to inexperienced cultivators, although not the mode used on an extended scale. A common flower-pot saucer, or even a common kitchen saucer or other dish, is filled with sand, and the cuttings thickly inserted in it. It is then watered until it becomes about as liquid as mud. The cuttings should of course be of the green or unripened wood—three or four inches long—placed in a strong light in a room or greenhouse—kept in a temperature of 50° to 80°, but best at 70° to 75°—allowed to remain from ten to twenty days till rooted—and the sand kept constantly in this semi-fluid state, for if they become partly dry they are ruined. A correspondent of the Gardeners' Monthly, succeeds equally well by placing his cuttings in sawdust, kept constantly wet, and covered with a pane of glass. Half-rotted sawdust is best.

PRODUCT OF FOUR COWS.

MESSRS. TUCKER—The following is an account of butter manufactured from four cows, during the past winter. One cow came in 6th May, 1863; one, Nov. 26; one, Dec. 10; and one, Jan. 10, 1864:

Dec. 19, 1863—	Sold	25	pounds at	28	cents, ...	$7.00
Jan. 2, 1864,	do.	42 14-16	do.	28	do.	12.01
do. 16, do.	do.	45 14-16	do.	28	do.	12.85
do. 30, do.	do.	52 2-16	do.	28	do.	14.59
Feb. 13, do.	do.	51	do.	28	do.	14.28
do. 28, do.	do.	47 3-16	do.	28	do.	14.21
Mar. 12, do.	do.	44 8-16	do.	30	do.	13.35
do. 26, do.	do.	45 11.16	do.	30	do.	13.70
		354¼ pounds, ...				$100.99

Commenced saving cream the 1st of Dec. for above trial, and probably had cream for 15 lbs. butter at the end of the trial, March 26; also 32 lbs. butter used in family, beside a pint of milk daily, which would amount to 401 lbs. butter from the four cows, for a period of 16 weeks and 5 days, or 25 lbs. and a fraction per week. The cows were foddered twice daily with good rowen hay, and 4 quarts meal each—two-thirds corn and one-third oats. The skimmed milk was given to three calves and three pigs. The pigs I bought the 5th day of Nov., paying $33 for them, and they were fattened on meal and milk, and sold the 22d March for 12 cts. per pound, amounting to $130.92 I think this has been a profitable operation, to say nothing of the amount of manure made by the pigs.

Deerfield, Mass., May 8, 1864. JAMES CHILDS.

CORN CRIBS.

EDS. CO. GENT.—I have often thought of giving you a plan for a corn crib which may be constructed with a trifling expense. As a large portion of our western farmers have no barns or granaries, it is very essential that they should secure their grain from the rats and mice which are so prevalent. A rail-pen built on the ground, commonly serves as a crib—perhaps erected in the centre of the field, where sheep and hogs daily destroy a quantity of corn. The grain destroyed yearly through the negligence of farmers, would in the course of two or three years build a substantial crib.

My proposed plan for the crib, is simply this. Cut four logs four feet long and eight inches in diameter; place them firmly in the ground the length and width of the crib. Then with an axe gradually slope the posts from the ground up—then place a milk-pan on each post, bottom side up, to prevent rats and mice from climbing up. A frame or a log crib may be built on this foundation, which will be secure from rats and mice. H. E. OLINGER.

HUNGARIAN GRASS FOR SHEEP.

"Wisconsin," in Co. GENT. of April 14, wishes to know if Hungarian grass, cut early, makes a good feed for sheep. It does—the very best of feed. I have fed it, cut both early and late, and in both instances it made most excellent feed. It should, however, always be properly cured. If it musts, or is exposed to the rains much after being cut, it is almost worthless. A gentleman informed me a short time since that the fattest lot of sheep he ever fattened, were fed on unthrashed millet, which is about the same thing as the Hungarian grass. Many are now making inquiries for the seed of millet in this section, we here by carelessness having almost got out of seed. We raised millet quite

extensively here some five or six years ago. We usually got from one to two tons of hay and about 25 to 30 bushels seed to the acre—the seed, ground, being equal to corn for feed, while the hay, properly cured, is excellent. One advantage in raising millet is the lateness in which it may be sown, for a farmer finding in June that his meadows are apt to be light or his corn a failure, can sow a field of millet or Hungarian grass and make up the deficiency. I think the smaller sort of millet preferable to the larger varieties or even Hungarian grass.

Millet may be sown as late as the 10th of July, and excellent crops be then obtained. Early sown is preferable however, as cutting and curing with the late sown comes generally in a very wet time. An old resident informs me that when the country here was new, he has seen millet ground into flour, and has eaten of the bread made from it.

King's Ferry, Cayuga Co. E. A. KING.

A PROFITABLE CORN CROP.

MESSRS. LUTHER TUCKER & SON—I herewith send you a statement of my last year's results in corn culture.

I do not divide the working of the corn and plowing, as I did not keep them separate, considering them as coming under one head. I had, as near as I could estimate, about 35 acres in corn, which I cultivated twice and plowed once. Just after the last plowing I sowed turnip seed. The following is the result:

To plowing and working	$109.78
7 lbs. turnip seed at 50c	3.50
3 bush. seed at 75c	2.25
Expense of cutting up	28 21
Husking and cribbing	119.26
	$263.00
By 2,532 bush. ears sound corn at 50c	$1,266.00
229 do. do. soft do. at 18c	41.32
Turnips sold	225.00
Fodder do	43.50
	$1,575.82
To expense of cultivation	263.00
Balance	$1,312.82

I charged the teams at 75 cts. a day, besides the labors of the men, which at that time would have kept them. Besides, I kept 17 head of cattle on the fodder without hay, as also 35 sheep. I turned my sheep into the field after the large turnips were pulled, some 75 head, and all of them were in condition to kill before I commenced to feed grain to the wethers. I make no credit of the turnips used in the house nor those fed to my own cattle, some 150 bushels. I intend to pursue the same mode of culture this season as last. Should I add the increased value of the corn, which in two months after could have been sold for 25 cents a bushel more, it would have still more increased the balance. With a good season and proper cultivation, I lean to the corn crop as by far the most satisfactory as regards results.

I am induced to send you this, from reading an article in the Co. GENT. of May 12, entitled "What shall I do with my land." The only manure used by me was plaster, hen droppings and a few leached ashes, well mixed, and was on a good quality of land, part of which was manured two years before for wheat. The statement I make here, I know to be correct, for I keep an account day by day with every crop, and so speak from the book. P.

Montour Co., Pa., May, 1864.

WAY TO REPAIR A WOODEN CISTERN.

Sometimes cisterns that have been made of wood will not hold, only for a few inches in depth; and, sometimes they will let it all out in the course of a few days. When the water all leaks out, it is very evident that the leak is in the bottom. In this case, take the diameter of the bottom of the cistern, on the inside, and cut out a bottom of good boards, that will fit closely on the inside. Now, spread water lime cement over the bottom, about an inch thick, and lay this new bottom on the water lime, and press it down well. That part will be leak-tight in a few days.

If the leak or leaks should be on the sides, or, if some of the staves should be decayed a little in some places, lath the inside of the cistern, and lay on two thick coats of water lime cement. As soon as the second coat of mortar becomes partly dry, dress out staves, about four inches wide, and set them up, on the inside of the cistern, and nail every fourth or fifth stave, through the plaster into the old staves.

This mode of repairing a wooden cistern is entirely reliable; and, in case a cistern is under a part of a house, where a new one cannot be put in its place, it is a very feasible and practicable way of making a repair.

Auburn, N. Y. S. EDWARDS TODD.

HOW TO HAVE PURE CISTERNS.

This spring my cistern got quite filthy, and a great many angleworms in it, and could scarcely use the water. I procured a couple of live fish and put them in the cistern, and since that time it has been free from worms and dirt and smell. The fish will live and grow finely. E. C. K.

White-Washing.—For ceilings, or walls of rooms it should be of Paris white or very pure lime.

COMMON WHITE-WASH.—Take nice white lumps of of unslaked lime, put it into a close barrel and slake with boiling water. Then mix as needed to the consistence of cream, this lime with soft water, strain it, and to each bucket allow a pint of good flour paste, and a teacup of liquid glue.

BRILLIANT STUCCO WHITEWASH.—A half bushel of best lime slaked as above, a peck of salt dissolved in warm water, 1 pound of glue dissolved, ½ pound Spanish whitening, 3 pounds of rice (or good wheat flour) made into a paste. Mix well; strain, and let it set for some hours; then apply as hot as possible.

White-wash may be made any color by stirring in coloring matter; the same as used for painting will do. When large surfaces are to be painted, or have a colored wash, keep a plank, and try every bucketful you mix, else you may make a shockingly pied picture.

White-wash is applied with a large flat brush with a long handle for reaching ceilings and high parts in whitening ceilings. Lay on a coat, the strokes all going one way. When dry, repeat, crossing the first all the time; continue the process until the color is a pure white. Be careful to avoid the paper, yet be sure to whiten the edges and corners well. If you should unfortunately spatter the paper, when dry rub it off with a brush or coarse cloth. In white-washing out of doors follow the general rules for painting—*the strokes all one way, and running with the grain of the wood.* It is quite as easy, and makes a better looking job.

Loss of Sheep.—The Greenfield (Mass.) Gazette estimates the loss of sheep in that county the past winter at from 4,000 to 5,000. "The disease is supposed to be the old English rot, caused by the bad quality of the hay raised the past season. Many farmers have lost from forty to fifty each. There appeared to be no remedy for the disease, until the sheep were turned out to pasture, when the mortality among them ceased."

RAISING HOPS WITHOUT POLES.

I have noticed several inquiries about hops, and the different ways of growing them without poles. One way is to set the rows six or seven feet apart—then the hills nine feet apart in the rows. Then use stakes seven feet long out of the ground—stakes square on the top. Set them between every third and fourth hill; then use No. 9 wire, strained tight over the top of these stakes—then one-third of the distance from the wire to the ground, use a line of marline, drawn tight and wound around each stake, parallel with the wire—then from each hill run two small strings. To the wire fasten them two or three feet apart.

Training the Vines.—Start two green heads up each string. When they reach the wire, then train them each way; the arms will hang down so as to fasten on the marline below—train them as above.

Concerning the yield, I can only tell from observation and heresay, which was very flattering indeed, compared with the expense of the common way of two poles to each hill, at a cost of $150 per acre.

Ballooning is my favorite way. Use one pole for nine hills; hills seven by eight feet apart—short stakes to each hill except the one the pole is at; pole eighteen or twenty feet long; use common wool twine from the top of the stakes to the top of pole, to train the vines on.

I have one yard, about five acres, that is wired with No. 8 wire, which I like very well. The poles are set at each end, and between the seventh and eighth hills. I have noticed some yards with short stakes running one row and a half to each wire; then run strings from the top of each stake to the wire.

We ought to make about $500 per acre this year, on our hops, to balance the bad luck of last year, on account of the insects. WILLIAM RHODES.

Babcock Hill, N. Y.

GROWING CORN FOR SOILING.

EDITORS CO. GENT.—In answer to Mr. Jonathan Talcott, page 240, April 14, I will give my experience, which has been considerable, in growing corn for soiling.

1st. If the soil is not already moderately rich, it should be made so by manuring; be deeply plowed and thoroughly pulverized.

2d. The best kind to sow, beyond all question, is the *choicest* sorts of *Sweet Corn*. You do not get so large a growth of stalk or ear from this kind as from many others; but it is so superior in quality, that this more than compensates for a lessened quantity per acre; besides, cattle will eat the whole of the stalk to the but, it is so much sweeter and tenderer; there is consequently much less waste in the stalks.

3d. It should be sown in drills about three feet apart, so as to leave room to work the cultivator between the rows, till the corn shades the ground sufficiently to keep the weeds down. The stalks should not be left nearer than six inches to each other in the drills or rows. This thin planting will give about as good a growth per acre as if thicker, and the growth will be better and more nutritious. The next best method to drilling, is to sow about one to one and a half bushels per acre broadcast, and plow in lightly with a three share gang plow. The corn then comes up in drills about one foot apart. It should never be harrowed in after sowing broadcast; for if thus left to grow up, the stalks have a *yellow, sickly, stunted* growth, and rarely produce ears. It is essentially necessary for corn to have a *good circulation* of air between its stalks, to ensure a nutritious growth, and you cannot get this unless it is in rows or drills. This is one great reason why wheat is so much superior when drilled.

4th. The corn should not be cut till the ears are nearly fit for roasting, as both these and the stalks are then in perfection for soiling. If fed previously to this, the cattle are apt to scour, and the corn does them less good—in fact it is often hurtful to them.

5th. To ensure corn for soiling during a long season, begin with planting the earliest sorts, and then continue with later sorts, in limited quantity, every two weeks. In this way you may have corn fit for soiling, in this latitude, from last of July to fore part of October.

One season I kept a considerable herd of cows, almost fat enough for the butcher, and yet all the time they gave from twelve to twenty-seven quarts of milk each per day. I have no doubt the average of their milk per day for about four months was at least fourteen quarts each of uncommonly rich milk. I have alwas regretted I did not keep an accurate account of the milking that season. The herd was composed of superior milkers, and of course had first rate pasture, in addition to the green corn, but no other food.

New-York, April 16th, 1864. A. B. ALLEN.

AMERICAN RAISINS.

We are making our own molasses quite satisfactorily. We are beginning to make our own sugar, wine, &c., which we have heretofore imported, and what shall hinder us from making our own raisins? and yet I am not aware that this *is* done to any extent. I see in a report of Col. Harasthzy before the American Institute Farmers' Club, that he says they have a grape from which they have made in California, raisins equal to the best imported, but he does not say *what* that grape is. Grape-growing and wine-making are largely on the increase in America, to the great satisfaction of many, and to the equally great dissatisfaction of many others, who fear a great increase of drunkenness in a land almost deluged already with intoxicating liquors. There is no manner of doubt but grape-growing will become one of our most important industrial pursuits, and if so why should we pay 30 to 50 cents for imported raisins? Why shall not those who wish to cultivate the grape for use while *fresh*, and who *do not* wish to make wine, use their surplus grapes for raisins, and thus have the fruit in some shape the whole year? Where is the person who does not like raisins, and where is the cook who could not use many more than she now gets to use? Of course no such grapes as the Isabella and Catawba could be made to serve this purpose, but if we can raise coarse, tough, semi-sour grapes successfully, why cannot we raise sweet ones?

We predict a great improvement in the variety of grapes for American cultivation, and that very few now cultivated will be regarded of much account 50 years hence.

We cannot but believe that grape-growing for the

purpose of raisins may become a good branch of industry so soon as we have the right grape, especially adapted to the American climate.

Who will tell us anything of drying raisins, and if there is a grape, which is hardy in America, which is reasonably suitable for raisins? We feel not only *generally* interested in this matter, but *personally*, on account of our conviction that Kansas is to become a great grape-growing country. W. BECKWITH.

Olatha, Kansas, April 7, 1864.

THE CURRANT WORM.

MESSRS. EDS.—In one of your numbers of the present vol. of the CO. GENT. you have an article on the currant worm. I am in the habit of destroying the worm in this way: You will observe that his hold on the leaf is feeble, and by the slightest shake of the cane he falls to the ground, but soon climbs up again. I watch my currant bushes, and as soon as I discover him I go to the kitchen and get the cover of a wash boiler, which I hold in my left hand, upside down, under the bush, and with a little stick a foot long gently tap the cane, and down rain the worms into the boiler cover, and as soon as I have shaken them all into the receiver I run to the stove, in which is a hot fire, and empty them into it, and they never climb up again. Perhaps some will fall outside the cover; I go again next day and serve all that remain in the same way, and I have no more trouble with them.

There is, however, a worm of a more formidable character that infests our currant canes here, and that is a thin white grub, which enters the cane at a bud, and then eats in and eats the pith of the cane, and so weakens it that as soon as the cane becomes loaded with leaves and fruit the cane breaks. I would be glad to know how to get rid of this grub. J. D. GROS.

Starting Delaware Grape from Cuttings.

In CO. GENT. of Feb. 11, A. S. Moss wishes some one to give the "modus operandi" for starting Delaware cuttings in open air. Two years ago I tried it with partial success. Last season I saw a method by which almost every cutting was started. Cut your cuttings in November, so that they will not be injured by frost, and bury them till April. Now the trouble with the Delaware wood is its hardness to root. To overcome this, lay them in tiers with dirt between, having the bottom of the cuttings toward the sun, in some warm locality, and water them occasionally. In this way you will get the roots partially started before the buds. No fears need be entertained concerning the buds starting. As soon as the roots are fairly started, place them in beds, the cuttings having about two inches space between them, and water them faithfully. This is one of the difficulties of starting cuttings of any kind with most of persons—they do not give them water enough. After the bud is fairly started they should be shaded in the hottest days.

King's Ferry. E. A. KING.

Remedy for the Borer.—A correspondent of the California Farmer says the following is a sure protection against borers in fruit trees: Take straw of any kind, twist a small rope of it, commence at the surface of the soil and wind round the tree, fitting it closely, but not very tight, from the soil to the first limbs of the tree, and fasten it, but be careful not to tie so as to obstruct the growth of the tree, and let it remain the year round.

The Quality of Winter Butter much Dependent on the Quality of the Hay.

The want of help upon the farm has produced some differences in our modes of management, and some differences also in the results of our farm operations, among the latter of which has been one which has taught me a lesson, which may be of some value to some of my brother farmers. It is in relation to the connection between the quality of winter butter and the quality of the hay upon which the cows are fed. Some dim, vague impression of the fact that there was some such connection had a place, probably, in my mind previously to the winter of 1862–63, but not with that degree of distinctness and strength of conviction in which it now evists there. Probably it was in part owing to some such vague, undecided impression, that I had been led to adopt the practice, for many years previous to that time, of cutting my hay a week or so earlier than was the common practice in the neighborhood. Other considerations in relation to the comparative nutritiousness and sweetness or good relish of early cut or late cut hay had, however, more to do in determining my usual practice than any consideration of the special effect of the one or the cows in particular. But in whatever way I had been led to adopt the plan of cutting hay earlier than is usual with most farmers, such had been my habit for quite a number of years. The scarcity of help, however, in the summer of 1862, deranged my plans, and hindered me from getting my hay cut until a considerable time after I would otherwise have had it done. The bulk of the clover heads had become dry and brown before cutting, whereas formerly I usually had them cured so fresh and red, and the leaves to a large extent so green, that hay came out of the mow in winter, looking nearly as fresh and smelling almost as sweet as while curing in the field.

During the winter following we found that our butter was not nearly as sweet or good flavored, or rich, or abundant as it had previously been. Our former customers, who had been always anxious to secure our butter even at a premium, were sensible of the difference; and we ourselves were sensible of it, much to our regret and mortification. As the cornstalks and other feed of that winter were the same as in previous years, there seemed to be no cause to which the deterioration could be ascribed, except that neither the hay nor the rowen were as sweet, juicy, and nutritious, as when cut earlier. As the same thing has happened again this last year, I am the more sure of this.

A. R. A.

ROUP AND LICE ON FOWLS.

To prevent or cure roup, and drive lice from fowls, feed them flour of sulphur, best kind.

To a gallon of boiling water add two large spoonfuls of flour of sulphur, and then thicken with corn meal, or corn and oats ground together. May be fed warm or cold, but *not hot*. *Feed once a week*. Keep the hen house clean and sweet, well ventilated, especially in summer and fall. Have plenty of dry lime always in the house, and daily throw over the droppings a few shovels full; it absorbs the ammonia at once, and keeps the house sweet; never use coal or wood ashes; their use separates the uric acid and fills the house with an offensive odor.

In the fall and early winter they are the most liable to roup; then give sulphur more frequently.

If any are sick, separate them—clean their mouths, feed soft food and sulphur. When their mouths are sore they can't eat, and die of starvation, unless some food is forced down their throats.

Sick fowls should be kept warm, and have plenty of water.

Tompkinsville, N. Y. J. C. THOMPSON.

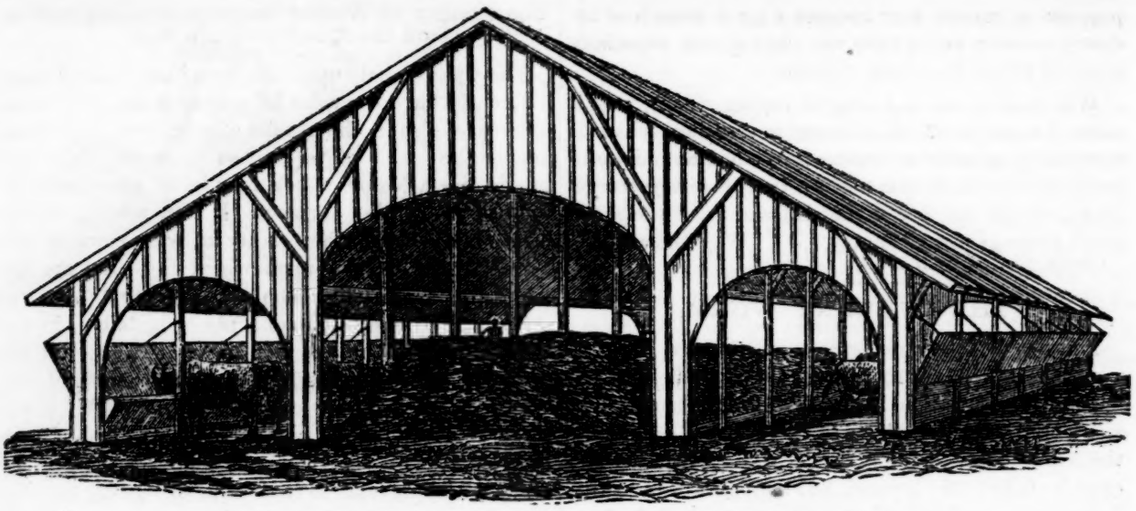


FIG. 1.—ELEVATION OF SUMMER FEEDING SHED—FOR DAIRY OF FIFTY COWS.

SOILING COWS ON DAIRY FARMS.

The feeding of milch cattle in a way to save all their manure, and to enable them to make the most economical use of all that grows upon the land devoted to fodder crops, is accomplished by what is termed "*soiling.*" This is seldom practiced in this country, not from any lack of minute explanation of the system and of its advantages by the agricultural press, and not by reason of there existing any reasonable doubts whether it would succeed in this country. It has been successfully practiced by farmers in many different localities. Nevertheless few farmers can be brought to believe that the benefits are so great as they really are, and they seem to feel as if they could not spare the labor required to take care of the stock in stables. Besides, few farmers have buildings adapted to the purpose, and so centrally situated that the labor of hauling the fodder from the fields to the cattle is not a great bugbear. Soiling cows will pay, and may easily be done on many dairy farms. The advantages may be briefly enumerated, viz.:

1. The cows are kept in better condition, give more milk, are kinder, more docile, and hold out in milk longer, than if allowed to roam.

2. The interior fences of a farm may be entirely dispensed with; a large yard being provided for the cows to take exercise in for an hour or two in a cool part of each day.

3. The entire product of the land is secured and fed to the cows. None of the crop is spoiled by the droppings of animals, nor hurt by their tread, nor by being lain upon; nor is it stinted in its growth by close cropping during the heat of summer when it can least endure this.

4. Both the solid and liquid excrements of the animals are saved without loss, to be applied to the soil at the best season, and in the best form, according to the judgment of the farmer—an advantage which outweighs all the others.

We do not propose to argue the question of expediency. The advantages above stated are obvious facts, or any one may prove them such after having had sufficient trial to learn how to manage with reasonable economy. The question is, How to do this; at least, How to Begin. Knowing that Mr. Donald G. Mitchell—the author of that very delightful and instructive book, "My Farm of Edgewood," which we have taken occasion more than once to commend to our readers—had given much thought to this subject, we wrote him for permission to publish his plan for beginning a system of soiling on an old farm, which is detailed in the book above referred to. Instead of this, Mr. Mitchell writes:

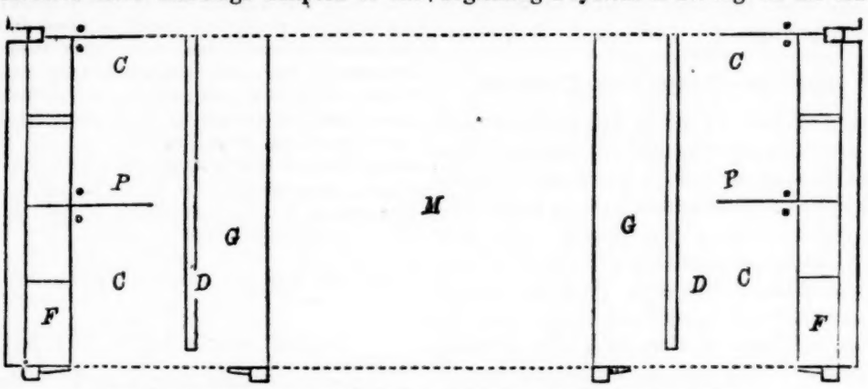


FIG. 2.—GROUND PLAN OF 16 FEET IN LENGTH OF THE FEEDING SHED.

REFERENCES—*C. C.* Cattle Floors: *D. D.* Drains for liquid manure; *F. F.* Feeding troughs; *G. G.* Gangways in rear of cattle; *M.* Manure heap; *P. P.* Two of the partitions between pairs of stalls.

"I send you a rough draft of the shed I had proposed to build, which would have been a cheap but substantial affair, and which, as a manufactory of manure alone, would, I think, have paid for itself in three seasons. Were I to erect all buildings *de novo*, I would so arrange them as to make one feeding place serve for both seasons. But my old winter stables were neither centrally situated, nor were they so disposed as to admit of *an economic handling* of the corn fodder, or other green food which might be supplied. And *this last is a capital point*, when reckoning upon the advantages of feeding a herd of twenty to fifty animals, two or three times a day, throughout the busy season. Green corn-fodder is bulky and heavy; every half mile of transport counts largely; and if the fodder be handled over two or three times for bestowal

along the mangers of interior stabling, a great deal of labor is needlessly sacrificed. Again, my proposed summer-shed was not only central, but within easy 'hauling' distance of the muck bed, from which I counted upon a weekly supply for the accumulating manure heap. And yet again, this manure heap would be within easy carting distance of the fields to be tilled the following spring. A shelter for the manure, under the conditions supposed, I should consider quite as important as a shelter for cattle. It is the habit with many, who grow corn-fodder to help out the August pasture, to scatter the newly cut stalks over the parched fields. Under these conditions, with a fiery sun, and a scorched turf, I believe that the loss of fertilizing qualities in the manure is enormous. With the feeding shed, every particle of manure would count for its true value; the cattle would be protected from the sun, and with a sufficient head of water at command, and a few feet of hose, the utmost cleanliness might be secured and the temperature moderated at will For success in soiling, particularly with corn-fodder, heavy manuring is essential; and the more rank and ammoniacal the dressing, the greater will be the succulence; and as the crop matures no seed, a reserve of mineral food will be left on deposit in the land for subsequent cereal crops.

I do not think you can urge soiling too strongly; and I am satisfied that in ten yeasr time no good dairyman upon smooth lands within close neighborhood of towns, will ever turn his cows to pasture."

[We extract the foregoing from the American Agriculturist for May, and may add the single remark that the system of soiling is growing in favor not only for dairy cows near cities, but also for live stock generally on grain farms. A friend in western New-York, on a farm of some 300 acres, mentioned to us the other day, his adoption of soiling last year with satisfactory results for his cattle and sheep, old and young. He left his mowing machine a-field, and had a bout or two taken with it by the team in the morning before starting for other work. One man or boy was constantly occupied in carting fodder to the barns, and in feeding. The grass was gathered with a horse rake after wilting a few hours, and taken in, but none of it fed until it had lain a day in the barn. He kept careful accounts, and had complete evidence of the economy of the process, which is to be repeated this year, when we trust we may receive full details for publication. His idea was, however, that a better way is to have a one-horse mower for the purpose, which could be worked by the same man and horse, by whom the grass is raked and carted. A cart is used on which, by a little practice in loading, a very large quantity can be taken at a single load.]

DWARF FOWLS---SCOTCH DUMPIES.

This variety of dwarf fowls is described by some writers as no larger than a good-sized pigeon. It is found occasionally in our farm-yards, and is considered less troublesome in gardens; the shortness of their legs prevents too free use of them on new made beds. In size they are generally below the common barn-door fowl of the country.

The Acoho, a native of Madagascar, is described as very small, with a circle of feathers about the legs, a thick tail, which it carries straight, and the end of the wings, black. Other varieties said to have come from Cambodia, have the legs so short as to drag the wings on the ground.

Buffon also mentions a sort of fowl in Brittany which are always obliged to leap, the legs being so short. They are also the size of the barn-door fowl, and kept as being

very profitable. The hens, it is said, will hatch thirty eggs at a time(?) Some think these dwarf fowls are the Adrian breed, of which Aristotle speaks in the highest terms of the fecundity of these dwarf fowls: "They lay," says he, "every day, and sometimes two eggs a day."

A very small fowl has been greatly multiplied in England, because it is very fruitful, and excellent for sitting; it is preferred in pheasant's walks to the common hens, which are too heavy. When the breed is pure the plumage of this fowl is quite white, and it is not larger than a pigeon.

Another variety, the Chinese dwarf fowl, is smaller than the English dwarf; its plumage is variegated on the different individuals, like that of the common breed. The painting of them is frequently found on Chinese papers.

The French also claim a breed of dwarf fowls. Its plumage varies like that of the common breed; its eggs are very small, not larger than that of the pigeon.

In Scotland they have a breed of dwarf fowls which are called "Dumpies," where they have long been favorites. They are said to be very plump fowls, with very short legs: the plumage is a mixture of dark or brown and white, and are said to be good layers and capital sitters and mothers. The London Times, in an amusing article on the Metropolitan Poultry Show of 1853, questioned the possession of these birds of any more valuable qualities than the facility with which they might be stowed away in a sauce pan. "But Mr. Fairlie of Cheverly Park, the only person, we believe, into whose hands they have yet passed, has reported so favorable an opinion of their merits as layers and mothers, no less than for the table, that we shall be much surprised if, either in their present state, or crossed with other fowls, they fail to prove a useful addition to our poultry yards."

Mr. Fairlie obtained his birds from Scotland; but all his inquiries have hitherto been unable to trace their origin in or importation into that country. Their general character, however, so closely assimilates to that of the Dorkings (as shown in our illustration) that the probability of their being descendants of birds stinted in their growth by the less genial climate of the northern district of our island, may readily be admitted; and this the more easily when we remember how many would describe the early ancestors of the Dorking race as "stumpy, thick-set, white fowls."

For a detail of their several characteristics and points let us refer to Mr. Farlie's own words: "The Scotch Bakers, or Dumpies," he tells us, "are a breed of fowls closely resembling the Dorkings in form, symmetry, and quality of flesh; the average weight of the full grown male bird is from 6 to 7 pounds, and of the hen from 5 to 6 pounds; their legs are singularly short, not exceeding 3 inches in length from the the hock joint; the comb is

generally single, erect and well serrated; the body round and plump, and the tail ample. As layers they have great merit, for after filling one nest, if the eggs are removed, they at once take to another, filling that also before they sit, during which process they fully justify the oft repeated remark made at the Metropolitan exhibition: *What excellent setters they must make!* They cover many more eggs than might be expected from their size, for while on the nest they appear as if they had been pressed flat upon it. They are gentle and quiet when hatching, and subsequently prove gentle and attentive mothers, their short legs enabling the chickens to brood well under them, even when standing up. I have found them perfectly hardy, and their eggs are larger, and the shell a clearer white than the usual average of an English market egg."

Our readers must not infer from the foregoing that we have Scotch Dumpies for sale, nor do we know who has them in this country.

Poughkeepsie, N. Y. C. N. BEMENT.

STRENGTHENING WEAK SWARMS.

The following experiments have been tried with good success, so far as we are aware. A hive that is weak in numbers is made to change places with one that is strong and can spare bees without particular detriment. For instance, you have a stock in the spring, that is weak in numbers but otherways all right. Another stock has abundance of bees. When they are in flight, quietly change the hives to each others' stands. The bees will seek their marked location, and bees enough from the strong stock will enter and remain with the weak one, to reinforce it and make a good stock. In swarming time, if you have a small swarm come off, hive it, and place it where you wish it to stand. Two or three days after hiving, change stands with another hive that has refused to swarm, but is "black with outhanging bees." Swarm will speedily become strong in numbers, and if the honey season continues good, will lay in a good supply for the winter. The old stock is not injured, as still enough bees remain to carry on their usual labors. Before changing stands, blow into each hive a little tobacco-smoke, to make them fill themselves and mix peaceably. When they find they are away from their own location, and in a strange hive, they seem to take things kindly and make the best of the matter. At least such has been our experience in the four or five cases of trial the past season. We propose to experiment still further another season. L. L. F.

"BEE-BOD."

Mr. Langstroth mentions that he finds that bees when swarming, can be determined to some "selected" spot. He speaks of stringing bees on a thread, making a ball the size of a hen's egg, and carrying it among the flying bees—that the Rev. T. P. Hunt says, by this device he can always prevent bees leaving his premises. Mr. L. says, "a black woolen stocking or piece of cloth, fastened to a shady limb in plain sight of hives, would probably answer a good purpose." That swarms are attracted to such places not only by the color but by the ease of attaching themselves to such objects. It is well known that places selected by first swarms, are very apt to be chosen by those that come after. That when one swarm is followed in quick succession by others, that they are very liable to cluster all in one location. Analogy would then lead us to suppose that the bee-keeper who furnishes imitation clustering devices, at convenient points of the apiary, would be rewarded by having his swarms settle where they can be easily secured or hived.

Mr. Solomon Sawyer, of Rolling Prairie, Wisconsin, informs me that he has had good success with a decoy made of black felt hat, shaped like a cluster of bees, about the capacity of a pint, stuffed and hung in the limb of a tree or small shrub, in plain sight of his hives. That most of the swarms settled on these devices. They should be made so as to be readily detached from their location, so that they can be carried and shaken, or laid at the entrance of the hive. If such, or similar devices, succeed, the securing and hiving of natural swarms will be much simplified. L. L. F.

HOW TO CUT ASPARAGUS, &c.

MESSRS. EDITORS—Yesterday, 1st May, we had our first dish of asparagus from an old bed planted some thirty years or more. I have generally had it first from 27th Arpil to 3d of May, and several times on 1st of May, showing this about a usual season. Cows and sheep getting a little bite of grass, but not abundant.

Two years ago it was stated in your columns that the proprietor of Congress Hall had asparagus 7th May, which was spoken of as early. Another person in the succeeding number, answered he had it the 6th. That year I had it on the first.

A word about the mode of cutting asparagus. I have always seen the article in market and at public houses, which had been cut about three inches under ground, leaving that length bleached and not eatable, and but about one inch and a half at green end useful. Why do they do this so? I never have mine cut below the surface of the ground, and use it when from six inches to a foot high, all of which will be tender and good.

I find this vegetable grows spontaneously around the slate rocks, and often very large and tender, where no cultivation or manure has been bestowed upon it. This would seem to indicate that a top-dressing of slate gravel would be useful. My bed has considerable slate in the soil, and the slate rock underlays part of the bed, if not all of it, probably fifteen or twenty inches below the surface. Z. A. LELAND.

Mechanicsville, May 2, 1864.

Mixed Crops---Flax, Barley and Carrots.

EDS. CO. GENT.—The article "Flax and Barley Grown Together," makes me think of this experiment again. I intend to try it on a small scale, because I am afraid of it; then I believe that a machine will not touch the flax knots, which I tried years ago. Here in the northwest we raised flax for the seed only before this time, but now I understand there are parties abroad who intend to buy the flax straw for manufacturing purposes. In this way of raising flax, together with barley, the straw will be lost. Barley and flax must have both a very good soil, and so must carrots; therefore I will make another proposition of mixed crops—that is, barley and carrots. Barley is an early crop and carrots late, and about the time carrots began to grow the barley is harvested, and then the carrots have time and place enough to grow. I tried it last year on a small field by inducement of a friend, who told me that it was done in some places in Germany to a great extent. I had a good result, although I cannot state the bushels or when I sowed. I intend this year to sow a larger field.

Fondulac Co., Wis. OTTO BOLLMANN.

Most of the shadows that cross our path through life are caused by standing in our own light.

The Wheat Crop in Southern Ohio.

EDITORS CO. GENT. AND CULTIVATOR—The winter of 1863-4 has been pregnant with interest and importance to the farmers of Ohio, and particularly in this locality. Indeed, the same may be said of nearly all the sections of country lying in this latitude. The effects of the past winter will afford the farmers, at a cost, too, which they will not forget, many a valuable lesson of experience upon which to base their future plans.

Upon the winter crops, the sudden changes to which we have been exposed have produced a marked effect. In places whole fields of wheat are killed. Others, again, are damaged—materially injured, while many look well, and seem to promise, at least, an average yield. These are results—effects. Let us inquire into the causes of these various results.

In the first place, we are safe in making the assertion that the whole wheat crop is injured. This may be attributed to the sudden and extreme changes from heat to cold which we experienced about New-Years, when the mercury fell from 60 to 70 degrees in a single night. Astonished inhabitants awoke on that day to find themselves left "in the cold" at 10 to 20 degrees below zero. During this change of temperature the wheat and fall barley was exposed, but subsequently received a covering of snow. In the course of about three weeks the snow thawed. A few days of mild weather ensued. Then another sudden change, with scarce any snow, but less severe than the first. Constant freezing at night and thawing in the day. On the heels of all this comes a cold, unkind, backward spring. After this testimony, the practical farmer will not be surprised to hear that our wheat crop is damaged. But why is it that we have such various results? All the fields have been exposed to the same injurious cause, and are, I believe, injured accordingly.

Those fields which were plowed in very dry weather, and sowed *broad-cast*, have fared the worst, notwithstanding the work was well done, and at considerable expense too. I have *known* acres sowed in this manner, plowed up for corn this spring. The wheat growing on gentle slopes facing the sun, is badly frozen out. Here we have an evidence that broad-cast sowing is not profitable on exposed or open land.

How, then, where it is protected? Better. Though not in general an advocate for sowing wheat in standing corn, I cannot do justice to the subject without saying a few words in defence of that system. In the eyes of an English farmer, a New-Englander, or any farmer who loves neatness, this may seem an offensive, scandalous, slovenly way of seeding a crop of wheat; but, in this locality, it frequently happens that the fall is so dry that the farmers have great difficulty in plowing their land. Hence, necessity compels them to resort to this plan. This season, it has proved a success; and the wheat sowed in the corn-field, protected through the winter by the stalks, by fences, by woods, or by snow-drifts, though sometimes a little "patchy" in appearance, looks far better than that *sowed broad-cast* upon open fields. The inference then from this example is, that wheat, in this district, sown in the corn-fields, quality of the land being the same, and other circumstances equal, will succeed quite as well as that sowed on plowed fields. And I may add that, in proportion to the labor and expense I have always found it pays quite as well.

Those fields of wheat which look the best were drilled. They promise a fair crop. There can be little doubt that if the farmers wish their crops to resist the winter, and "pay," in the Yankee acceptation of the term, they should go forthwith and purchase a drill to seed with next fall. And more than that, the drill will not cost large farmers anything, because they will save it in the difference of value in one year's crop.

Pardon this intrusion upon your valuable space, and I will close with a word of friendly caution to my fellow farmers. Place no confidence in the predictions or arguments of *interested* men. If they advance arguments, look out for false premises and fallacies. A miller was trying the other day to induce me to sell my wheat to him. He asserted that "last fall was very favorable for plowing and sowing; consequently there was more wheat by about one-third sown than usual. Satisfied that his statement was untrue, but not choosing to contradict, I allowed him to proceed: "The wheat crop in Indiana looked very fine; great quantity of flour in the country," &c. The news from Fort Pillow, and the sudden rise in gold, had caused wheat to rise suddenly, but it fell back 10 or 15 cents per bushel almost immediately. This was the critical moment when my prophetic friend wished to purchase. I did'nt bite, and in less than a week wheat rose, and at the present writing has risen from fifteen to twenty cents per bushel in Cincinnati. HARRY B.

Harrison, Ohio, April 23, 1864.

ITCH OR SCAB ON SHEEP.

Please answer, through the CULTIVATOR, a remedy for the itch on sheep—they rub themselves until they are nearly destitute of wool. Also, whether it is contagious among sheep? J. L. H.

The best answer we can give to this question is to quote the following from Dr. DADD:

Scab, itch, erysipelas, &c., all come under the head of cutaneous diseases, and require nearly the same general treatment. The following compound may be depended on as a safe and efficient remedy in either of the above diseases:

Sulphur	2 oz.
Powdered sassafras	1 oz.

Honey, sufficient to amalgamate the above. Dose, a tablespoonful every morning. To prevent the sheep from rubbing themselves, apply

Pyroligneous acid	1 gill.
Water	1 quart.

Mix, and wet the parts with a sponge.

Whenever the scab makes its appearance, the whole flock should be examined, and every one having the least abrasion or eruption of the skin should be put under medical treatment.

In most cases, itch is the result of infection. A single sheep infected with it is sufficient to infect a whole flock. If a few applications of the pyroligneous wash, aided by the medicine, are not sufficient to remove the malady, then recourse must be had to the following:

Fir Balsam	half a pint.
Sulphur	1 ounce.

Mix. Anoint the sores daily.

The only additional treatment necessary in erysipelas is, to give a bountiful supply of tea made of lemon balm, sweetened with honey.

Most of the shadows that cross our path through life are caused by standing in our own light.

OBITUARY NOTICES.

Gen. JAS. S. WADSWORTH was wounded and captured during the recent severe Virginia battles, and, although some doubt has been felt respecting his death, there seems now to be but too much reason for the belief that he only survived a few days the injuries received in the hard-fought struggle of the 6th inst. Gen. WADSWORTH was perhaps the best type we could cite, of the American Country Gentleman. Inheriting one of the largest and most valuable landed properties in the State, in the heart of its greatest agricultural wealth, and surrounded in an almost princely home, by everything that could render life attractive to himself and useful to his fellow men, he was one of the first in obeying the call of his country, and willingly abandoned everything, to lay down his life, if need be, in her service. As a proprietor, he was one of the few in the annals of our agriculture, who have succeeded in endearing themselves to a large and intelligent tenantry; and his estates, leased in such a way as to give him a controlling voice in their agricultural management, were regarded as a model by all who watched their administration or witnessed the evidences of high and profitable culture they afford. He was chosen President of the New-York State Agricultural Society, with one voice, in 1842, and re-elected for 1843; and he brought to the duties of the position a determination to promote its interests and secure its permanent establishment, which has never been exceeded, and rarely equalled, in all its history. It was to the utmost regret of its friends that he refused to continue still longer its presiding officer—a refusal dictated not by any weariness of his own in the task he had undertaken, but in the hope that its increased prosperity might be secured by carrying the Presidency in turn to other parts of the State. In the address delivered by him at the Capitol, Jan. 18th, 1843, he remarked:

"Agricultural improvement here rests upon a foundation on which it never stood before. It is sustained by free institutions; it is the result of laws, wise because liberal. The enfranchisement of the many, the elevation of the masses, must go hand in hand with the intelligent, industrious, and prosperous cultivation of the earth. If agriculture owes much to the benign influence of our institutions, liberty owes not less to agriculture."

His devotion to the cause of liberty, as well as agriculture,—to the elevation of the masses and the support and vindication of our institutions, was destined, twenty years later, to be tried and proven in a way which neither he nor any of us could then anticipate; and most nobly and bravely, with all the zeal and self-sacrifice of the true patriot, he has battled and fallen in their behalf. He leaves behind him a memory upon which his descendants and countrymen may look with pride, and which, more than all else, should be cherished and revered by the Farmers of the State.

Hon. CHARLES B. CALVERT of Maryland, died suddenly at his residence at Riversdale, on the 12th inst., of paralysis. He had been President of the Maryland State Agricultural Society, and at the time of his death was President of its State Agricultural College. He was a Member of the last Congress, and had filled other stations of public trust. Warmly interested in agriculture, he had become especially engrossed in the College, and devoted to it no small share of his time and labor. In the management of his estate, he was a liberal patron of every forward movement, either in culture, in implements or in stock,—a hospitable and high-toned gentleman,—an observant and careful agriculturist,—a model in the social relations and intercourse of life. Although residing in a part of the State which sympathized far more generally with the South than with the North, in the present struggle, Mr. CALVERT was never led by the popular pressure to take sides against his country, and had lived to see her in the enjoyment of brighter prospects for ultimate success and peace than could have been hoped when he first avowed himself a friend of Union and the Constitution.

Rev. C. E. GOODRICH, late Chaplain of the State Lunatic Asylum, died at Utica on the 11th inst., aged 62 years. His experiments in the culture of the Potato, to which he was devoted with all the ardor of a genuine enthusiast, are familiar to our readers. He had given to them all his spare time and money for years; and the knowledge that he had impoverished himself in the work, and could not probably be much longer spared to continue it, led to the Testimonial fund in his behalf which was made up by private subscriptions at the last Annual Meeting of the State Society. This fund has served to soothe his last hours not only with physical comforts, but also with the thought that his long exertions were duly appreciated by the farmers of the State; and he has gone to his long rest with the satisfaction of knowing that he had contributed every thought and effort while he lived, for the welfare and instruction of his fellowmen.

REMEDY FOR THE CURCULIO.

EDITORS CO. GENT.—The ravages of the curculio, in many portions of the State of New-York, as well as other states, have become so disastrous to the plum crop as to render it at least uncertain, and in some localities an almost utter failure; and yet cultivators appear to have failed hitherto either from supineness or want of energy, in discovering some means of staying the wide-spread destruction, or checking the rapid increase of the destroyer. For the benefit of your readers, I cut the following from the Cincinnati Gazette, in the hope that it may prove as successful in New-York as the writer claims it has in Kentucky. It is not impossible that it may prove alike beneficial as an exterminator of the coleoptera which infest the vines of our gardens. CLARK C. HASKINS.

New Albany, Indiana.

Mr. Winn Gunn of Shelbyville, Ky., sends us the following interesting statement in reference to the destruction of this pest to fruit:

In the spring of 1860, I noticed some of my plums punctured. Having succeded in catching the striped bug that is so injurious to melon vines—by placing wool on the hills around the young plants—I concluded to try it around my plum trees. I removed the grass about a foot around the tree—placed trash-wool on the cleared ground, and wrapped it around the forks of the tree. On looking the next day, I found my trap had caught "*a number of the enemy*," they having become entangled in the wool. This tree produced a bountiful crop, while the fruit on the others in twenty feet of it, "came to naught." 1861 I treated part of the others the same way, with like result. Also in 1862. In 1863 I treated all my trees the same way. A more healthy and abundant crop of plums I never saw. I have eight varieties; I have a freestone damson that deserves a place in every fruit-yard being hardy and very prolific—a superior fruit for canning or drying.

GOOD AND CHEAP COFFEE.

Don't pay 25 or 30 cents per pound for "Pure Java" or "East India" coffee, but make your own, at a cost of one-third of these prices. Somebody has to pay for these long advertisements.

Here is a good healthy compound: Take good, plump, clean barley—burn it properly, not quite as much as coffee usually is, and Rio or St. Domingo coffee—mix at the rate of three parts of the former to one part of the latter, and you will have a drink as palatable as any of the mixtures now so much in vogue, and have the satisfaction, also, of knowing *what* you are using. W. J. P.

Foreign Notices.

"The Cattle Melon."—Our foreign exchanges give currency to an article highly commending "a new green crop, yielding forty tons per acre of a food especially adapted for milch cows, as, being void of all aromatic flavor, it communicates none to milk." * * "It is readily eaten by cattle, sheep and pigs. It is easy of cultivation, exhausts the land less than any root crops, being less time in the ground, and deriving so much nutriment from the atmosphere through the large and luxuriant foliage, it is more certain to plant than root crops, having fewer enemies, and may be cultivated upon all soils suitable for root crops."

It seems that a farmer in Indiana first sent seeds of it to an English friend, who is now engaged in writing it up, and who accompanies his communication with an analysis of "part of a fruit which weighed 16 pounds," made for the purpose by Dr. Voelcker.

We take this very estimable "fruit" to be nothing else than the common pumpkin. Good luck to it abroad; it is a serviceable crop enough here to deserve the compliment of foreign notice.

Arab Horses.—A correspondent of the London Times recently wrote to that journal that "the much-vexed point as to the merits of English and Arab horses has just again been tried in Cairo. Ali Pasha, who has the finest stud of Arabs in Egypt, maintained that no English horse could run against an Arab for four miles. His Highness Halim Pacha offered to run Companion, a well-known racer here, against him for any sum he liked. The match was run from the first station on the Suez desert to Cairo. The English horse, which was bred by Lord Ribblesdale, won in a canter by more than half a mile. Such a crushing defeat has taken all courage out of the partisans of Arab horses. What astonished the natives most was that Companion, beating his adversary by so great a distance, was perfectly fresh, and quite ready to turn round and run the distance over again, while the Arab was quite exhausted and blown."

Gas Lime.—In answer to inquiries about the use of gas lime for agricultural purposes, an officer of the Edinburgh Gas Company, writes that all the waste lime from their works, consisting of the dry lime powder thrown out of dry lime purifiers, and the wet lime refuse dried partially like stiff clay—is sold, the former at 2s 9d. per ton, and the latter at 1s. put on trucks. He says:

I believe that waste gas lime is equal in efficiency to fresh lime for most of the purposes aimed at in its use in farm lands. I sold all the lime thus produced at a gas work in Forfarshire for sixteen years to several farmers, who uniformly expressed their satisfaction therewith. One very usual application of it was its mixture with the "wrack"—viz., the large piles of weeds and tangled roots of grass cleared off the fields annually. On being composted in this way, the lime gradually killed all the vitality of these weeds, and returned them to the land in the way of manure. It also served the purpose of opening up stiff clay soil, being first spread over the surface and then plowed down. But the chief and most beneficial use of gas lime is found in its admixture with farm-yard manure at the time it is applied to the fields. This is explained by the fact that the lime from gasworks, while retaining all its original properties as a hydrate of lime, has acquired, in addition, a large amount of sulphur, much of which is *free*, and when openly exposed, is taken up readily by the oxygin of the atmosphere. This sulphur so readily parting from the lime enters into combination with the volatile ammoniacal elements of the fresh manure, retaining them in the form of sulphate of ammonia, to be afterwards taken up gradually by the crop to which it has thus been applied. It is in the first and last mentioned application that gas lime has proved most beneficial in those cases coming within my own knowledge. It is not equal to newly burned lime shells for breaking up stiff clays.

CANNING FRUITS.

It may be interesting to some of your readers to know that in these times of high prices, many fruits can be preserved with little or no sugar. Currants, gooseberries, cherries, peaches and pears, require no sugar to preserve them. Raspberries and blackberries do not require more than 4 ounces of sugar to a pound of fruit, and strawberries but little more. We have now the different kinds nearly as fresh and good as when first gathered. Put them up the same way as if you used the usual quantity of sugar—that is, expel the cold air by heating the fruit after it is placed in the jars, by setting the jars in cold water, which heat to boiling. The jars that we use are Mason's self-sealing, with zinc covers, which can be screwed on before the jar is removed from the hot water. We have never lost a jar of fruit put up in them. The chemical action of the zinc cover may have some effect upon the preservation of the fruit.

Canton, Conn., May, 1864. M. S. DYER.

WAY TO REPAIR A WOODEN CISTERN.

Sometimes cisterns that have been made of wood will not hold, only for a few inches in depth; and, sometimes they will let it all out in the course of a few days. When the water all leaks out, it is very evident that the leak is in the bottom. In this case, take the diameter of the bottom of the cistern, on the inside, and cut out a bottom of good boards, that will fit closely on the inside. Now, spread water lime cement over the bottom, about an inch thick, and lay this new bottom on the water lime, and press it down well. That part will be leak-tight in a few days.

If the leak or leaks should be on the sides, or, if some of the staves should be decayed a little in some places, lath the inside of the cistern, and lay on two thick coats of water lime cement. As soon as the second coat of mortar becomes partly dry, dress out staves, about four inches wide, and set them up, on the inside of the cistern, and nail every fourth or fifth stave, through the plaster into the old staves.

This mode of repairing a wooden cistern is entirely reliable; and, in case a cistern is under a part of a house, where a new one cannot be put in its place, it is a very feasible and practicable way of making a repair.

Auburn, N. Y. S. EDWARDS TODD.

CARE OF STRAWBERRY BEDS.

We usually pass through our beds about this time with a fork hoe or potato digger, and loosen the surface of the soil and pick out all weeds. It is then a good plan to scatter a *liberal* quantity of well rotted manure among the vines or "hills." After which mulch well—say one inch deep, with sawdust or tan-bark or clean straw or hay. If any of the readers of this article should have an old bed in which the vines have run together so as to become a thick mat of plants spade under strips about one foot wide, leaving strips of plants about the same width. Work among these vines with a fork hoe—pick out all weeds and scatter a very liberal supply of well rotted manure among them, over which scatter the mulching.

To those who think they will not get as much fruit in this way as by leaving the whole mass of plants, I would advise to try the experiment on one part of their beds, and report the result, especially in the size of their fruit.

After the beds are through fruiting, spade over the ground, leaving narrow strips of plants—say 3 to 4 inches wide. Work well among these with the fork hoe—manure *highly*, and as the plants throw out "runners," train them along the edges of the rows. Before fruiting season next year give them the same treatment as before described. A. M. PURDY.

Red-Winged Blackbird---*Agelaius Phœniceus.*—VIEILL.

We now present to the reader a very common and well known bird. The Red winged Blackbird has long had the reputation of being a notorious corn-thief.

He certainly does steel a considerable quantity of corn, but he more than repays the farmer in the spring by destroying countless myriads of grubs and other noxious insects.

The Red-winged blackbird, or Swamp Blackbird, or Marsh Blackbird, as he is respectively called in the different States of the Union which he frequents, arrives in the middle States in the latter part of March, although the time varies according to the season. They immediately return to their old haunts—preferring meadows, swamps and ponds, and the borders of such creeks as have low banks. About the middle of April they begin to select their mates and to retire in pairs to form their nest and rear their young.

In the early part of May they begin to construct their nest. They generally choose some meadow or swamp for this purpose. On the low bushes found growing in such places, or among tall clumps of reeds, the nest is often placed. The nest is constructed of long rough meadow grass, sometimes of reeds, and is lined with fine grass. The nest is ingeniously constructed, and when placed in a meadow which is sometimes overflowed, the Blackbird takes care to place it high enough to escape damage from water. This is equally the case whether it be placed upon a bush or in a clump of rushes, and when in such positions, it is firmly affixed at the top to the adjoining twigs or rushes as the case may be. In this receptacle, the female deposits four or five eggs, never more, of a pale light blue, marked with faint rings of purple and long straggling lines and spots of black. They exhibit considerable variation in the markings. On an average they measure an inch in length by three-quarters of an inch in breadth. It is very hard to get an average measurement of these eggs, for, although I have compared over fifty, I have not yet found two exactly agreeing in size and markings.

When an intruder approaches the nest, the male flies to meet him, and keeps fluttering over his head, uttering all the while loud notes of distress. By his acting thus he often discloses the site of the nest, which might not otherwise have been discovered without considerable trouble. It is not uncommon to find three or four nests of this bird in close proximity to each other—sometimes on the same bush.

About the middle of August the young birds assemble and fly in flocks, consisting of forty or fifty—sometimes greatly exceeding this number. At this age they closely resemble the female—the males being distinguishable, however, by a little orange on the shoulder. This increases in brilliancy and space as the season advances. J. P. N.

BARN SWALLOW---*Hirundo horreorum.* BARTON.

Few birds are better known in this country than the Barn Swallow. It is a sociable bird, preferring the habitations of man to its native wilds. There can be little doubt but that this bird built its nest and reared its young in caves and hollows of trees, in the manner that the Chimney Swallow did before the civilization of this country. It has, however, embraced the superior facilities for raising its young, afforded by the rapid increase in the population of this country. Now the Barn Swallow is to be found almost exclusively around the habitations of man. In this respect—that of adapting itself to circumstances—it seems to have shown a remarkable degree of intelligence.

The Barn Swallow arrives in the Middle States about the last week of March or the first week in April. Much, however, depends upon the weather. Sometimes they have been known to arrive much earlier, and *vice versa.*

Their arrival is hailed with joy, as it is generally considered that with them comes spring—spring with its flowers, green grass, birds, and a thousand other delights which we associate with the name.

Swallows of all kinds have always been considered friends to man. Even the greatest haters of birds have been unable to find any injury which they can charge them with perpetrating. So that when our friends, the Barn Swallows, take up their abode in our barns, they meet with a cordial welcome, and are never destroyed except perchance by some brainless idiot who would fain improve himself in "shooting on the wing." Did they really afford this, there would not be so much harm in it. But it does not follow that a person who can shoot every Swallow that comes sailing past him, can drop a Partridge, for it is nothing but a *knack* after all.

Well, supposing the Barn Swallows to have arrived, we first notice them arranging their plumage, and then in a few days more they begin to construct their elaborate nests in which to rear their young. This is usually placed on, or adhering to, a rafter of a barn or some other out-building, and is generally constructed so as to be under the shelter of some projecting beam. The nest is of the shape of an inverted cone, with a perpendicular section cut off where it joins the rafter. At this point it is much the thinnest. It is constructed of pellets of mud which the birds form at a neighboring creek and carry in their bills to the chosen spot, and of layers of grass interposed between the layers of mud. When this hardens it forms a hard and substantial nest which weighs nearly two pounds. The hollow of this inverted cone is filled nearly to the top with fine grasses, and on top of these are laid soft feathers. J. P. N.

SHADING CROPS.

There are some erroneous opinions entertained in relation to the advantages of shading growing plants. A parched surface soil is supposed to be detrimental to successful growth; hence the opinion that a covering of living weeds or grass protects the roots of young trees from the hot sun and drying up, and also that a young crop of newly seeded grass will succeed better the first season under the heavy shade of oats and wheat.

It is familiar to most of our readers that plants in dry weather pump up large quantities of water out of the soil, and dissipate it freely from the surface of the leaves in the form of vapor. It would impress a valuable lesson on the mind of any one not familiar with this fact, to try the following experiment: Allow a piece of ground, say ten feet square, to grow up with a dense mass of grass or with a crop of rank weeds; adjoining it let a similar portion be perfectly free from vegetable growth, and keep the surface mellow by a thorough raking or hoeing once a week or oftener. The superficial observer would say that the exposed and bare soil thus subjected to the burning rays of a summer sun, would soon become dry and all the moisture dispelled from it, while he would take it for granted that the dense covering of the cool, shading leaves on the other portion, would keep the soil cool and moist below. If he is not already aware that the exposed mellow soil forms a perfect mulch for the earth below on one part, and that the thousands of stems of living plants on the other are bringing up and discharging water into the air at a rapid rate, he will be very much surprised on thrusting a spade into different places, to find that the exposed soil is quite moist below the surface even if there has been no rain for weeks, while the "shaded" part will come up *dry* from the full depth the spade has gone down. We advise every one to try this experiment on account of the clear occular demonstration it affords.

The practical deduction to be made from these facts, are that a mellow soil with a mellow surface will retain moisture better than in any other condition. A mulching of straw or other litter, (this matter being in a dead or decaying state,) answers a good purpose to keep the soil moist below, but it is not so good nor efficient as the mulching of an equal thickness of pulverized earth. Pass down through a stratum of straw four inches thick, and observe the degree of moisture; then remove four inches of mellow top soil from another place, and a greater degree of moisture will be evident. A hard, bare and unpulverized soil will not retain moisture nearly so well as one that frequently has the crust broken and kept mellow. Still worse than a hard surface, is a growth of grass and weeds. If these facts were sufficiently appreciated and understood, the instances would be less frequent of tree-planters allowing their young orchards and fruit-gardens to become hard and crusted, or to grow up with weeds; and few would ever think of setting out young trees in grass, sooner than they would plant a crop of potatoes in an unplowed pasture or meadow. A further illustration is furnished by the practice of one of our best farmers, who cultivates his corn crop once a week regularly, the whole season through, or until the large encroaching ears forbid the passing of the horse. His corn is larger in consequence, and his fields are as clean as a floor when the corn is cut up.

Some of our readers are well acquainted with such facts as these, and our object in making these remarks is not so much to impart what may be new, as to invite distinct and accurate experiments in relation to the subject, in order to enforce more thoroughly its importance, now that the season for making such trials is near at hand.

FEEDING AND WINTERING SHEEP.

MESSRS. EDITORS—Mr. Chas. P. Rowell of this place slaughtered a good sheep the past week; it was of the native breed, with a little tincture of Merino. He weighed alive 240 lbs. The dressed meat weighed 135 pounds; rough tallow, 30 pounds. The price obtain- for the sheep after it was killed was $33. The carcass was sold in the Boston market.

Mr. Rowell purchased the sheep the first of December for $20; the weight at that time was 220 pounds. He was fed on hay, with one pint of corn a day, up to the time he was slaughtered.

Mr. R. has been quite successful in feeding sheep the past 3 or 4 years, purchasing the best Merino weathers in the fall, and feeding them about three months. The mutton sells as quick and at as good prices in the market as that from any other breed, and is much better adapted to the palates and stomachs of the working classes than mutton from the fat sheep mentioned above, which is only fit to tickle the palate of an Englishman.

Warner, N. H. S. C. PATTEE.

DESCRIPTION OF A HAY-RACK.

MESSRS. LUTHER TUCKER & SON—I have just been reading Mr. INGALSBE'S description of how to make and use a horse-fork; so I thought I would try and give a description of a hay-rack I used last season, on which were drawn 125 loads of hay and grain, and never lost a load though it was all loaded by boys under 12 years old. As we use a horse-fork to unload, they thought it fun.

First get two pieces of pine, 3 by 6, and 16 feet long, for sills; then get two pieces of oak, 3 by 3, and 7 feet long, for cross-pieces; then two pieces oak plank, the same length and 6 inches wide, 1½ inches thick; then mortice four posts, 18 inches long, into the sills 6 inches from the ends; then set the sills 3 feet apart and mortice on the 3 by 3, and bolt on the plank 5 feet from the posts; then get four pieces of ash or oak, 16½ feet long, 4 by 1, bolt them to the cross-pieces, one on each side of the wheels; then take four pieces of oak board, 6 by 1 inch and 3 feet long, round the corners and fasten to the rail over the wheel, fasten a piece of board on top of them, put on the ladder in front, and 4 feet stakes behind, and it is done. A man can make it in a day, and if he has the stuff it will not cost over $1. W. G. WALKER.

Oak's Corners, N. Y.

To Keep Rabbits from Fruit Trees.

In summer peel the bark from walnut or other bushes a little larger than your trees—take a sharp knife, cut around the bush the desired length, say about 15 or 18 inches apart—then cut lengthwise, peel it off and place it on your trees while green. This will prevent a great many insects from climbing the tree—they will be deceived by this false bark.

NOAH EVINGER.

THE CULTIVATOR.

ALBANY, N. Y., JUNE, 1864.

Death of Dr. Pugh.—Dr. EVAN PUGH, President of the Pennsylvania State Agricultural College, died on the 30th of April at Bellefonte, after a short illness, of typhoid fever. Beyond the brief statement of the event in the papers we have received no particulars.

Dr. PUGH was devoted, most earnestly, to the cause of Agricultural Education. We had long known him by correspondence, but only met him personally once—at Rothamsted, in 1859, where he was employed for some time in pursuing his chemical studies and carrying on various important investigations, not only as assistant to Mr. LAWES and Dr. GILBERT, but also those instituted and conducted by himself. He was wholly a self-made man, having as a teacher at home economised sufficiently to enable him to spend several years abroad in securing a thorough scientific education, both in Germany and England. His aim in this was mainly if not solely, to fit himself to carry on the work upon which he entered immediately on his return in 1860—the management of a high school or college for the education of farmers' sons. He was indefatigable and self-denying in study and effort; and had an unfaltering confidence in the practicability of adapting such an institution to the wants of those for whose benefit it should be established, and whose progress in intelligence and in skillful practice, it was the highest end of his life to promote.

He has been taken away just as success seemed dawning before him. His place, we might almost say, it will be impossible to fill. We had hoped that he might be an acknowledged leader (as indeed he was so far as he had gone) in solving the great problems of the course of instruction best suited to fit our farmers for their pursuit, and of the widest and most effective application of science to the demands and duties of the practical cultivator. Cautious in his conclusions; earnest and painstaking in whatever he undertook; conscientiously fearful of wrong and antagonistic to deceit and humbug; possessing a mind marked by solidity of acquirement and soundness of judgment, rather than by peculiar brilliancy or specious polish; warmly interested in the branch of science, to secure the mastery of which he had exerted himself so long and zealously; qualified in a high degree for the control and instruction of the young; undaunted by the difficulties which try the faith and quell the courage of most men—he had before him a career second to that of no one associated in name and labors with the progress of American Agriculture, and his untimely death is a loss, not to the farmers of Pennsylvania only, but to those of the whole country, and to the friends of agricultural education in every State.

The Death of Mr. Faile.—Among other tributes to the memory of the late EDWARD G. FAILE, Hon. LEWIS F. ALLEN writes to the senior editor of this paper, under date of Black Rock, May 2d: "I am much grieved at hearing the death of our excellent friend, Mr. FAILE—a most useful, worthy man, and a public benefactor. Our State Agricultural Society owes him a debt of gratitude for his services in its cause, and it should be prompt to acknowledge it. For one, I feel that I have lost a dear and valuable friend. Thus we are passing away, and you and I are getting into the advanced rank, not long hence to follow. As I look back the round of thirty years, since I first became associated with our State Society, and see how few of its early veterans are left, I almost "feel like one who treads alone, some banquet hall deserted." Mr. Faile has left us the grateful example of a wise, good, and generous man. Honored be his name."

The following extract is from a private letter to the Treasurer of the Society, from Hon. T. C. PETERS, dated at Darien, May 3d:—"I sincerely subscribe to what was so well said in the last issue of the COUNTRY GENTLEMAN in regard to our late excellent friend and colleague, Mr. FAILE. Any man may well be proud if he can feel or know while living, that so just a tribute will be paid to his memory when dead. I was never ranked among his friends, though always treated with kindness. But I always admired the purity of his character. He was an excellent specimen of the honest, upright business man; one of the best I ever saw. In *my* estimation of men, he was a great and good man. Gradually we seniors drop away, and you juniors will soon remember us, or some of us, only when you seek for members to fill our vacant places. I fear, however, that few can truly bear as good a report as our departed friend."

Personal.—We understood some time ago that SANFORD HOWARD, Esq., of the Boston Cultivator, was to remove, this season, to a new sphere of effort at the West. Before leaving, he was entertained at dinner by the Massachusetts Agricultural Club and others, and presented with a massive silver pitcher, as a token of appreciation of his services for the improvement of agriculture, and respect for his character. Mr. Howard has been connected with the press for twenty-one years, his communications for our journal having led to an engagement with us at Albany in 1843, which continued until his removal to Boston in 1852. He has now accepted the office of Secretary of the Michigan Board of Agriculture and of the Agricultural College of that State. His duties will place him among the Faculty, and will embrace those of making himself acquainted with the agricultural resources of the State, of making annual reports concerning the progress of improvement, of advising in regard to the farm of six hundred acres attached to the college, and to report upon agricultural experiments made thereon. He will carry with him the good wishes of all his friends, and the ability to be of great service to the agriculture and the farmers of the young and very prosperous State which is to be his future home.

The New-England Agricultural Society have decided to accept the offer of the proprietors of the Hampden Park at Springfield, Mass., of the use of their grounds for the fair, provided suitable arrangements can be made with the railway companies for the transportation of stock and visitors. The time of the fair will probably be the 6th, 7th, 8th and 9th of September next.

Lightning Rods Inefficacious.—The Fayette (Ind.) Courier gives a statement of the death of George W. Spitter, by lightning, his house being furnished with a good lightning-rod, the upper part being copper and the lower iron. The disaster is ascribed to the inferior conducting power of the iron, the discharge passing from the rod into the house, and causing the death of the owner.

It is most obvious that the wrong cause is assigned. Iron, although not so perfect a conductor as copper, is incomparably better than the dry wood of which the house was built; and no charge would leave it for the latter, unless the communication was broken with the body of the earth. There is no doubt that the imperfection existed which is so common with rods otherwise good and efficient, namely, a want of proper connection with the earth. The rod was not sunk deep

enough—it did not penetrate the soil deep enough to reach a permanently moist stratum. Silica is a non-conductor, and dry sand is very poor. The dry sand ridge failed to carry off the great discharge. The rod should have penetrated at least eight or ten feet of soil—have been furnished with several radiating arms at the lower end, to dissipate the fluid, which should have been laid in a bushel or two of charcoal, which is a good conductor.

It would have been better for the copper to have been at the lower end, and to have passed into the earth, as it will not, like iron, become rusted through and destroyed in the lapse of years, by contact with moisture.

A good rod, high enough above the building—continuous or well connected throughout—and passing deep enough into moist earth—has never failed to afford protection.

The De Sora Poultry Humbug.—In the COUNTRY GENTLEMAN of March 3d, we referred to the statement so frequently repeated by writers on the Feeding and Management of Poultry, as regards the system of fattening Fowls and producing Eggs for market adopted by a certain *M. de Sora* near Paris. This story has been several years going the rounds of the papers, English and American, and we referred to it at that time because it had then just been republished in the London Mark Lane Express of Feb. 1st. It will also be found in condensed form on page 349 of the last Report of the Department of Agriculture (1862.)

Thinking that its truth was, to say the least, exceedingly doubtful, and that it had been in circulation quite long enough to deserve exposure if false, we had become quite anxious to investigate the matter, and therefore brought it to the notice of a friend who left for France in March last. We have now the pleasure of laying the results before our readers. Our friend writes us, under date of

HAVRE, FRANCE, 14th April, 1864.

* * * * * * *

"As to M. de Sora and his chicken establishment—at the *Halles*, the great market of Paris, I inquired of several large dealers in eggs and fowls, and *none of them had ever heard of him*, or any establishment of the kind conducted on the scale his was said to be. At the *Comptoir National d'escompte*, where, had he any paper out, or did he any banking business whatever, they would have known him, they could give me no information. Two of the large hotel-keepers of Paris also knew nothing of him. I wrote to one of the largest dealers in game and *volailles* in the Palais Royal—he had never heard of either M. de Sora, his chickens, his capons, or his eggs. I searched the *Almanach Bottin*, which contains the name, one might say, of every individual of any note doing business in France—that of de Sora was not to be found. After all this, I think you can safely put him and his establishment down as existing only in the imagination of some *farceur*, who from time to time amuses himself by gulling the public with the statistics of this great affair, which no one else has ever either seen, or even heard of, except through him in the Journals."

This seems to settle the matter definitely enough.

Deep versus Shallow Plowing.—This question has lately been up for discussion in our columns, and a friend in Onondaga county, in the course of a private letter, makes the following sensible remarks, which we take the liberty to extract in substance as below:

"Here deep plowing *is good*. I have seen a cellar dug, and the earth spread over the ground about a foot deep. Oats sown on this earth, coming from a depth of say five feet, grew wonderfully. So, when wells are dug *here*, the earth coming from them produces well. This is our case. In Westchester, on the other hand, I have seen places where the soil had been removed to grade the surface, and the new earth heavily manured, but apparently to little purpose—the next crop grown being feeble and unpromising. Such land, I think, will not bear deep cultivation, if by it is meant reversing the surface so as to bring up this sterile subsoil. Is not the rule a safe one to say that in a district where it is proven that the earth dug from cellars, wells, &c., produces good crops the first season, deep plowing *there* is good—while in cases where it is true that the subsoil will *not* produce good crops the first season, even by the use of manure—that in such cases the deepening of cultivation must be gradual and slow."

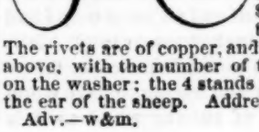
Sugar Pan Elevator.—Our correspondent, G. W. F., has furnished us with a description of a Sugar Pan Elevator, invented by E. D. Newton, Magog, C. E., who has used it with success the past three dears. Its object is to lift the pan from the fire and move it aside on rollers, at pleasure. The rough sketch accompanying the description is too imperfect for the engraver; but we shall endeavor to make the description intelligible without it. There are two horizontal beams overhead, on which the rolling frame moves, directly above the pan. The frame, which somewhat resembles that of a chair with the back cut off, is furnished with rollers, or trucks, which rest on these beams or joists. The four legs of the frame descend to within about fifteen inches of the top of the pan. Near the lower end of these legs are two horizontal rollers, each turned with a crank, and furnished with a rachet-wheel and click. From each of these rollers descend two short ropes with hooks at the lower end to hook into the handles of the pan. Whenever it is necessary to remove the pan from the fire, these are hooked into the pan, the rollers are turned with a crank, and the pan lifted to any desired height, and held there by the rachet-wheels, while it is rolled off from the fire by the trucks rolling on the beams above.

The following dimensions are given by our correspondent of the different parts of this apparatus: The truck sills resting on the beams above are 4 by 4 inches and 5 feet long; mortices are made through each of these truck sills 1½ by 6 inches, for receiving the wheels, which are 5 inches in diameter, and turn on a 1-inch hard wood pin. The rollers below are 4 inches in diameter—the rachet-wheels 6 inches in diameter. A strip of ½-inch board should be nailed on the beam to keep the truck sills in their places.

Massachusetts.—The State Board of Agriculture have decided to hold a public meeting for business, lectures and discussions, at Greenfield, Dec 13–15, 1864, similar to that at Springfield in December last. Also, an Annual Meeting at Boston, Jan. 26th to Feb. 1st, 1865. It is a good thing to institute such meetings as these, and they will afford evidence of increased vitality on the part of the Board, both useful and gratifying to the farmers of the State.

Prolific Sheep.—Mr. JNO. I. GROESBECK of Bethlehem, has three ewes that dropped 10 lambs. All of the little ones are strong and doing well. They are the common sheep of the country. Two of the four dropped by one ewe are being raised by hand.

Stamped Rivets for Marking Sheep.—In a recent number of the Co. GENT. I gave a description of my way for marking and numbering sheep. Since then I have received several letters and orders for the stamped rivets. Now I wish to say to the wool growers through your paper that I can furnish them with the rivets, stamped to order, for $1.25 per hundred; where the age is to be kept, 25 cents will be added.



The rivets are of copper, and stamped (like the one represented above, with the number of the sheep on the head and initials on the washer; the 4 stands for 1864. This is to be inserted in the ear of the sheep. Address J. W. CLEMENT.
Adv.—w&m. Warner, Merrimack Co., N. H.

The Illustrated Horse Management is the title of an admirable work by EDWARD MAYHEW, M. R. C. V. S., reprinted from the London edition by J. B. Lippincott & Co., Philadelphia. It is an octavo volume of 548 pages, with upwards of 400 beautifully executed engravings, devoted, firstly to a full explanation of the anatomy of the horse, and then to physic and how it should be administered; shoeing, its defects and requirements; the teeth, their natural growth and the abuses to which they are liable; food, as to time of feeding and kind of food—followed by a full and detailed examination of the evils occasioned by ordinary stables, the various faults and vices they encourage, and those resulting from injury or disease, and stables as they ought to be to meet the highest requirements of the animal and his owner. Chapters are also devoted to the dealings of grooms and horse-traders; to the desirable and undesirable "points" of the horse, and what constitutes them; to breeding; breaking and training, and, lastly, to the principles involved in the construction of carriage, harness, and various stable accessories. A very full index accompanies the whole.

Of course there may be differences of opinion as to some of the laws laid down by the author, but the work is one well worthy of careful study, calculated to lead to the milder, more judicious and more effective training and treatment of this most serviceable and deserving animal, and at the same time, from the happy style employed and the abundance of clear and appropriate illustrations, as interesting as it is useful and instructive. It is a worthy companion volume to the "Illustrated Horse Doctor" by the same writer, which was pronounced by "Bell's Messenger," (perhaps the leading London authority,) "about the very best book respecting the treatment of equine disease ever published." What that book is, in the treatment of diseases, this is intended to be, in the wider sphere of general management; while the typographical excellence of its execution, not less than the character of the engravings and contents, renders it as appropriate for the parlor table as for the library shelf. It should be in the hands of every Country Gentleman, particularly if new stables are to be erected or old ones repaired, while those intending to purchase horses may glean from it many valuable hints.

How it was Done.—A successful farmer writes to the COUNTRY GENTLEMAN as follows: "I commenced business in life at the age of 21 years, at $6 a month, without capital; and if to-day, in the estimation of my agricultural friends, I stand one inch above the lower round of the ladder, that space must have been gained little by little, and so moderately that I could scarcely perceive that I had made any progress,—though aware that I had made some addition to our buildings—repaired fences—set out shade trees and taken care of them—dug a host of stone, made a few hundred rods of underdrain, that enabled me to commence my spring work at least one week earlier than before the drains were made, and on the whole made general improvement on the face of my farm—plowed deep, cultivated well—never summered my manure in the barn-yard—usually used from two to three tons of plaster each year, and on the whole have raised fair crops—all of which has been done notwithstanding impaired health for the last few years. One of the greatest secrets in good farming is to get good land, and then attend to it—not to be switching off to town every day. I never was so fortunate as to have my work all done. I could find work for self and all hired help I had money to pay, no matter how much storm or mud. It is always in season to make barn-posts, fence-caps, fence-posts, stakes, and in the winter and spring to have wood fitted to stove. I never think of cutting wood as it is used, any more than I think of killing a hog when my wife wishes for a good ham."

The People's College.—The newspapers inform us that this institution, located at Havana, Schuyler county, in this State—and to which our Legislature last winter voted the entire proceeds of the Congressional land grant for the benefit of Agricultural Education—is now open for the reception of students. The Faculty, it is announced, is constituted as follows:

Rev. Amos Brown, L. L. D. President.
Hon. Henry S. Randall, L. L. D., Professor of Practical Agriculture.
John Phin, Ph. B., Professor of Chemistry and Physics.
John Griscom, M. D., Professor of Anatomy, Physiology and Hygeine.
Rev. F. S. Howe, Principal of the Normal Department.
Timothy H. Porter, A. M., Professor of English Literature and Modern Languages.
Wm. H. Folwell, A. M., Professor of Latin and Greek.
F. A. Barton, A. M., Professor of Mathematics and Military Science.
E. J. Pickett, A. M., Professor of Geology, Mineralogy and Mining.
C. M. Booth, M. D., Professor of Botany and Vegetable Physiology.

Farmers should Study More.—I have, all my life, until a few late years, been a practical farmer, and while I have never been able to follow all scientific developments and conclusions, I have always believed that scientific research was invaluable to practical farmers, and that scientific agricultural and horticultural works should engross a large share of every farmer's attention. They would be to him a constant source of useful knowledge, whether he could apply successfully all the theories they contained or not. I regard practice without theory about as inefficient as theory without practice.

It is a thousand pities that farmers should suffer themselves to be so ignorant of their own profession, as is generally the case. There is no profession where real knowledge can be better or more profitably applied, and I know of no field of industry, which embraces a wider range for thought, and more intensely interesting developments, or more sure to richly repay the care bestowed.

I wish farmers could see this as it really is, instead of looking upon agricultural and horticultural works, as *book farming*, unworthy their notice, and not worth half the money they cost. I love to see young farmers growing up under the highest respect for the views and opinions their fathers and grandfathers entertained, but it is at the same time idle and senseless to conclude that all which their fathers practiced was the best, and good enough for them to follow, and that there is no need of their looking for a better way. My advice to them would be to become acquainted with all the proposed improvements, and compare them with the old ways, and then be governed by their best judgment. H. D.

Farming.—It is only within a year, for the first time in ten years, (the time that I have been interested in it,) that farmers have had a remuneration equal to any other business in the country, and yet there seems to be an alarm, both East and West, that the farmer is going to get *rich*; although with the prosperity of the farmer is linked that of the nation, and nothing would benefit this country so much as agriculture raised to a grade that would attract talent and capital to its prosecution.
R. M.

Vermont Ahead.—It is stated in a Boston paper that Governor Smith and the Vermont commissioners intrusted with the care and disposal of the land scrip for the State Agricultural College, have effected a sale of more than one half of the scrip, a portion at 80 cents per acre, and the remainder at $2, realizing upwards of $60,000, which has been invested in Vermont State sixes. It is hoped that a fund of $120,000 will be realized for the purposes of the grant.

Inquiries and Answers.

Supply of Water.—Will any of your correspondents help me to information as to the best way to get a good supply of water for my family, including provisions for bathing. I have about as many children as old Jacob had, but, thank God, I have more daughters, and all have one mother. I have a large house, with almost "seven gables." Can I get sufficient water from the roofs? Of course my family require more water than Jacob's did, as they had no floors to scrub, and did not require any clean shirts. I have a good spring about 400 yards distant, and might have a ram, but I fear they are uncertain, and pipe is now very expensive. If a cistern will be sufficient, how large should it be made, and how? T. E. B. *Harford Co., Md.* [There is no doubt that the roof of our correspondent's large house would furnish an abundant supply of water for all domestic purposes for the whole year round. The difficulty usually is that cisterns are too small, and four-fifths to nine-tenths of all the water which falls upon the roofs is wasted or lost. Ten feet square of surface gives two barrels for every inch of rain; and three feet of rain, the average of the Northern States, afford from every ten feet square over seventy barrels. A roof thirty by forty feet furnishes each year nearly 900 barrels of water, or more than two barrels daily the year through. All our correspondent has to do, therefore, is to provide good eave-troughs, conducting-pipes, and tight capacious cisterns. Underground cisterns are easily made of stone or hard-burnt brick, laid in the best water-lime mortar, and plastered inside with three coatings of the same. Tanks in the upper part of the house, from which to draw water from stop-cocks into wash-rooms, &c., may be made of pine plank in the form of large tubs, say five or six feet in diameter, and as many feet high. They should be placed near the centre of the building, so as not to freeze. The following rule will enable our correspondent to determine the contents of any cistern of ordinary size—and after having ascertained the amount of water which will come from his roof in a year, he may divide this by 4 or 6, according as he wishes his cistern to hold two or three months supply. For 5 feet in diameter, 4⅓ barrels for each foot in depth; 6 feet, 6¾ barrels; 7 feet, 9 barrels; 8 feet, 12 barrels; 9 feet, 15 barrels; 10 feet, 18⅓ barrels.]

Broadcast Sowing Machine.—I write you for information in respect to broadcast sowing machines. I want one that will sow all kinds of grain and grass seed, and plaster. There was some years ago one made at East Bloomfield, N. Y., called the Seymour machine. Is that made there yet, and is it as good as any other? Where is any other made, price, &c.? I want the best I can get. J. S. *Hoffman's Ferry, N. Y.* [We believe the Seymour machine is still made at East Bloomfield. There are several other broadcast sowers, but where manufactured or sold we are unable to say. Why do not manufacturers let the public know where their goods can be had?]

Squashes—Manure—Cauliflowers. — First, how far apart must vines, squashes and melons for instance, or the different kinds of squashes, be planted not to mix?—2. Will they mix the first year they are planted in contact so as to hurt the squashes, or only spoil the seed for the next year?—3. Do they grow and bear better to nip off the ends of the vines?—4. I would also like to know if slacked lime is a good thing to mix with the contents of the privy or hen manure? Some think it does not have the bad effect that ashes do; for my part I am fearful.—5. Will not some of your correspondents who understand raising cauliflowers, give their mode of doing it? I have tried several times with poor success, and should be glad of a little instruction. J. W. [No very definite distance can be given for planting squashes to prevent mixing. Prevailing winds may carry the pollen some rods, but the chief difficulty is the intermixture caused by bees and other insects, which are entirely uncertain in their movements, and which may fail to produce crossing at a distance of only a few rods, while at other times they may carry the pollen ten times as far. The hybridization chiefly affects the seed the first year, and not the fruit, the product of this seed the second season showing the full effects of the change. We have had no experience in nipping the ends off the plants. It would doubtless have a greater or less influence in increasing productiveness. We would not advise the intermixture of lime with hen manure, unless with additions at the same time of some absorbent containing ammonia. There is less objection to ashes, which already contain considerable absorbing earthy matter, but even with these an additional absorbent is advisable. In relation to the cultivation of cauliflowers, will some of our readers who are familiar with the failures as well as the success in their cultivation, please favor our correspondent with the desired information]

Marrowfat Beans.—I write to learn if you know anything about a bean known as the "Marrow." I have often seen them named in the price current of the Boston papers. They rank in that region first, and the "Blue Pod" next. Jos. Hills. [The Marrow is a large variety of the white field bean—when well grown the seeds are half to three-quarters of an inch in length, and nearly round. It commands about 25 cents more per bushel in New-York than any other sort. For seed apply at the seed stores.]

Ditching-Plows.—Please inform me through your paper, or invite your numerous subscribers to give what information they may have concerning ditching successfully with the different plows constructed for that purpose. We have not seen any of these plows advertised lately, and should almost think they had become obsolete. H. Hollister. *Mount Lebanon, April*, 1864. [Our own experience and that of several of our neighbors, has fully established the value of a ditching-plow as a labor-saving implement. We allude of course to the adjustable sub-soiler used for loosening the hard earth, to obviate the use of the pick. Experiments in cutting many miles of ditch for tile, have shown that it can be done at less than half the cost required for doing the work wholly by hand in all sub-soils that cannot be thrown out by the spade alone. Manufacturers of these plows, as well as of many other implements, would consult their own interest, and that of the public, by advertising more freely.]

Wheat Cut Green for Fodder.—Will you please inform me, or get some of your contributors who have experience in the matter to inform me, whether wheat cut in the blossom state and cured as hay, can be relied upon as a satisfactory substitute for good timothy hay? The damage done to wheat by freezing out, is so frightful in the West, that if it can be made fully to take the place of good hay, it would be most profitable to make that use of it. J. B. *Woodview, Ky.* Will some of our readers give us any experience they may have had on this point.]

Strawberry Boxes, &c.—Can you inform me what is the best and cheapest box made for strawberries, &c., and where to be obtained, and at what price? Also crates to contain from fifty to one hundred boxes? Any information you can give me on this head will be thankfully received. A. W. L. *Clinton, N. Y.* [We have not the information necessary to enable us to answer these questions.]

Strawberries Diseased.—Can you inform me, through The Cultivator, of the remedy for a curious disease which appeared on my strawberries last season? It consists in an exceedingly crumpled and deformed state of the leaves. They seem to rise freely, but on expanding, assume the condition above stated, at the same time retaining their natural green color or turning but slightly yellow, and never attaining more than half the size of ordinary healthy leaves. Runners which take root produce plants with the same crumpled leaves. Other runners, growing to a length of two or three inches, do not root, but turn black and die off. Sometimes, however, both healthy and deformed leaves are to be found on the same plant. This disease appears more strongly in different parts and certain portions of the beds. My plants are of the Wilson variety; soil a rich clay loam. They have received proper care and attention. If you are acquainted with the nature and treatment of this disease, you will greatly favor me by pointing out the remedy. C. Lee. [This appears to be a curious disease. We know of nothing like it, and cannot furnish a remedy.

Baulky Horses.—Relative to the correspondent complaining in the Co. Gent. of the 31st of March, of an unhappy tempered horse, I would suggest, if a mare, and more than four years old, sell her at a three-fourths price, and get another as much like her as possible, two years old, have her trained by a man of *judgment* and *self-command*, and by kindness and firmness, teach her, as one of the first lessons, to *stand still*. With man or beast, everything depends upon *early habits*.

Brome Co., C. E. Leonard Wells.

A Batch of Inquiries.—Please give the best method of raising corn, especially from thin lands? What kind of tobacco yields the best, and which is the best way to raise it? Give the best plan for raising sweet potatoes and peas? State the best way to raise cucumbers and cabbages, and tell which are the best kinds? Give best method for raising young chickens and turkeys? S. W. B.

Pickles—Bone Manure.—Will you please inform me the best way to put up cucumber pickles for army use—whether in salt or vinegar, and whether the brine or vinegar should be strong or weak, and any other directions necessary? Also, inform me if bones, dissolved by steam, are deprived of any of the fertilizing elements, so that the meal would be less valuable for manure than if ground or dissolved by vitriol? B. SMITH, *Cuba, Mo.* [Cucumbers for pickles packed in salt will keep a long time—perhaps two or three years. But in this State they are unsuitable to be sent to the army, as they must be passed through a fortnight's process in converting them to good pickles—which soldiers in camp have not the facilities for doing. Made into pickles and kept in vinegar, they will remain uninjured for some months. The vinegar should be of medium strength, and not too sharp. Bones would not be deprived of any valuable element of fertility by being dissolved with steam, unless a portion of the mucilage should be drawn off from them, which would somewhat lessen their value.]

Caponizing.—Can you tell me where I can find the necessary directions for caponizing fowls? J. A. W. [Very full directions for this operation were published in THE CULTIVATOR for 1842, page 196—also in the American Farmer's Encyclopedia, page 258.]

Botany.—I want an illustrated Botany—one abridged Botany, and one Lexicon. I want a standard work. Any information would be a great favor to me. J. W. S. ["Gray's Lessons in Botany," and Gray's "Manual of Botany," are used as text-books in our colleges and academies, and would probably meet your wants as well as any work to be had. To these you should add Darlington's Agricultural Botany of "Weeds and Useful Plants." The three books would cost $5 to $6.]

Alden's Cultivator.—In the RURAL REGISTER of 1864, Alden's Cultivator is described. Where is it made—its price, and will it do well in sandy prairie. There is also a Hand Cultivator for gardens. Where is one to be had and price? C. Y. P. [Alden's Thill Cultivator will suit your soil. It can be had of PASCHALL MORRIS, Philadelphia—price $10. The Hand Cultivator alluded to, is made by HAINES & PELL, New-York—its price we do not know.]

Starting Hickory Nuts.—In answer to the correspondent who wishes to know how to make hickory nuts grow, I will state that I should serve them the same as peach stones—that is, place them in the ground in the fall, being careful not to place them where water will stand on them; they should be covered lightly. The next spring he will find them nicely sprouted and ready to set. E. A. KING. *King's Ferry, N. Y.*

Gang Plows—Are now in use in Southern Illinois. There is one pattern manufactured by Seibert of Ashley, Washington Co., Ill. Another by J. L. Rurek & Co. of Nashville, Washington Co. Each of these run two plows, drawn by four horses, and as I understand it, are made 10 or 12 inches, according to order. Both are patented, and the prices range from $50 to $75. Another gang plow has been invented by Rev. Mr. Oglesby of Richview, same county, running three 10 inch plows, and drawn by four horses. This plow is so arranged that either one or all of the plows can be raised out of the ground at the will of the driver. Patent applied for. BUCKEYE.

Poudrette.—In answer to the inquiry of "B.," in Co. GENT. of the 31st of March—how may domestic poudrette be prepared and rendered inodorous, &c.? Swamp muck—that which is chiefly composed of decayed leaves and stems of trees and swamp bushes, mixed at the rate of four or five, or more loads, to one of the contents of the vault, and permitted to lie through one winter, or better still, through a whole year. It should be turned over at least once during the winter to insure a more thorough incorporation of the materials, when it will be thoroughly deodorized, and fully equal in value to the best poudrette sold by manufacturers. When lime can be procured at a moderate price, a barrel to four or five loads of the whole will improve it. It may then be applied to any farm or garden crop with excellent effect. H.

Corn for Soiling.—In drilling corn for fodder, if the land is in fair condition, and clean, why would it not answer to have the drills as close, nearly, as the drill could be made to run without disturbing the rows? This system would, I think, answer for soiling if not for fodder. A. W.

Concerning Domestic Guano.—Some weeks since Mr. E. R. Towle inquired concerning the use of domestic guano, and in your last number inquires for facts in the case of success or failure in the different departments of agriculture. I have used domestic guano in corn and potato hills, *invariably with very marked success.* I prefer mixing about equal parts of the guano and plaster—have sometimes bought guano which was damp and sticky, which I have mixed with pure dry sand as more convenient in such a case than plaster. I drop what I can clasp in my hand of this mixture into about six hills. For corn I cover the mixture with about an inch of earth before dropping the seed—for potatoes I drop the mixture directly upon the seed. I have found corn planted without the guano, side by side with that where the guano was used, to look pale and inferior, while the corn manured was of a very dark color and vigorous growth. Last season I noticed my potatoes, manured in this way, matured earlier than those treated in any other way. ETHAN BROOKS. *West Springfield, Mass.*

Neat's Foot Oil.—In your issue of March 31, H. K. inquires what is "neat's foot oil, and how is it made?" It is the oil from the feet and head of cattle. The *best* is made by simply boiling the feet. The oil will rise to the surface, and when cold can be poured off, and is then ready for use.

W. F. B.

White Willow.—I, some time since, through THE CULTIVATOR, alluded to the culture of white willow, for fencing purposes, wishing to gain some knowledge on that point. I would now inquire more fully about its merits. It has, like almost every other new idea, its friends and enemies. The *Rural New-Yorker*, I see, classes itself among the latter, and warns farmers against travelling agents and "*Salix Alba*" in general. Will you please give me your opinion about it, as a fencing material? I never saw it in a fence or otherwise to my knowledge, and therefore certainly am not posted on the subject. I inquire, wishing to make some of the fence if it will be at the recommend of its friends. B. E. C. *West Le Roy, Mich.*

FIELD CULTURE OF CABBAGE.

EDITORS OF CO. GENT.—I am just preparing a piece of land for cabbage, as I raised a good crop last year with very little expense or extra trouble. First select a piece of rich loamy soil; manure thoroughly with cow or sheep manure; plow about ten inches deep, and leave it until the first week in June; then plow again, but not so deep; harrow it well, and mark it 3 feet each way. The first wet day take up the plants; get a boy to drop one in each hill; let a man follow with a setting-stick. Be sure to set them up straight, and pack the earth around the plants. In a week go through them with a hoe, and loosen the earth around the plants, and replace those that failed. In three or four weeks go through them with a cultivator, and hill them with the hoe. In August hoe again, and they will do until November, then they can be sold or fed to milch cows, and will produce more milk and butter than any other food. Cabbage will keep on the barn floor until New-Year. Those that I feed in spring, I bury in the lot and take them up as I want them. I feed them to both sheep and cows, and with good hay are the cheapest and best food they can get, as it will cost no more to raise an acre of cabbage than it will an acre of potatoes. W. G. WALKER.

Oaks Corners, N. Y.

RAISING BEANS.

I noticed, a few weeks ago, an inquiry about the best way to produce beans. Now, I think I have given the Co. GENT. my way of doing the work on a bean crop a few years ago, but will do so again.

In the first place, I would have the land plowed or freshly cultivated the last thing before planting. Then I would mark, or otherwise, so that, with a planter, I could set the hills not to exceed eighteen inches apart each way, and never put a cultivator among them, as a hoe will be all that will be needed if taken in season after they are up. In this way I am satisfied that more beans can be got from a given quantity of land, with less labor, than in any other way that I have ever seen tried. The recent cultivation leaves very little to do after, and being set so thick together, gives about two hills where there would be but one if done with a horse. A. MOSS.

FLAX GROWING.

MESSRS. EDITORS—After seeing in the Co. GENT., D. B. WAITE'S doleful account of growing flax last year, I am induced to give my experience, and if you think it worth publishing, you are at liberty to do so.

About the first of May I sowed 4½ acres of well plowed corn-hills, at the rate of one bushel of Saplin seed per acre, harrowed once before and once after sowing. Paid $10 per acre for pulling, and $2.50 for whipping off seed. Had it whipped and rotted last fall. I got 50 bushels of seed, which I sold for $3 per bushel, and sold the rotted straw for $55 per acre, which, after paying all expenses, leaves a very good profit. G. SMITH. *Easton, Washington Co., N. Y.*

HOW TO SHOE UGLY HORSES.

Take a cord about an eighth of an inch in diameter and three feet long—make a loop in one end—put it in the horse's mouth the same as bits, then over the head, then back of the ears, and then put the end through the loop. When the shoer gets ready to shoe the horse, take a firm hold of the cord, and if the horse does not stand, tighten gently upon the cord, and the worse he acts the more you must tighten, and he will soon be glad to yield and keep quiet. I have seen it tried and frequently used it, and it works well, and will not injure or hurt your horse a particle.

Cape Vincent, N. Y. E. C. K.

OATS AND RYE GROWN TOGETHER.

EDITORS CO. GENT.—I notice a communication on the Cultivation of Flax and Barley, sown together, and the results, &c. I propose giving my experience for a number of years past, in growing oats and rye sown together.

I sow 1¼ bushels of oats and three-quarters of a bushel of rye to the acre. The grain, in growing, is not as liable to be prostrated by wind. The rye has a firmer and stiffer straw than the oat, consequently it is a support to the oats. I am convinced that grass seed takes root more readily than when sown with oats alone. I prefer the feed for horses, especially on heavy work. In feeding milch cows, mixed with corn in the ear, and all finely ground, it makes the best of feed for milk. If the crop of oats and rye is cut as early as the seed is well developed, the straw will be mostly eaten by stock. STORRS BARROWS.

South Trenton, N. Y.

STRETCHES IN SHEEP

J. P. Silver, in Co. GENT. of April 28th, wishes to know what ails his sheep. I think they have the stretches. I will give a certain remedy which I used to give to my father's sheep when at home. At feeding time look out for any sheep that stands around out one side without eating—if any, you may be sure he is attacked with the stretches. The sheep will act stupid, eye rather glassy; I never noticed that they were more apt to drink however. The remedy is as follows: As soon as noticed give each sheep which is ailing about a tablespoonful of tar; the tar can be given by putting it on a pine stick, then putting tar and stick in the sheep's mouth; the sheep will eat it readily, and seem to like it. This, if the case is taken in hand in time, will prove a sure cure. I have seen many cases thus treated, and never saw a sheep lost yet so treated.

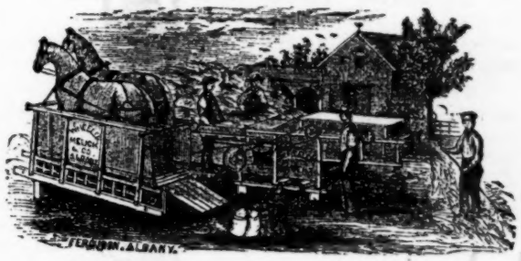
King's Ferry, N. Y. E. A. KING.

NEW-YORK STATE
Agricultural Works.
WHEELER, MELICK & CO., PROPRIETORS,
ALBANY, N. Y.,
PATENTEES AND MANUFACTURERS OF

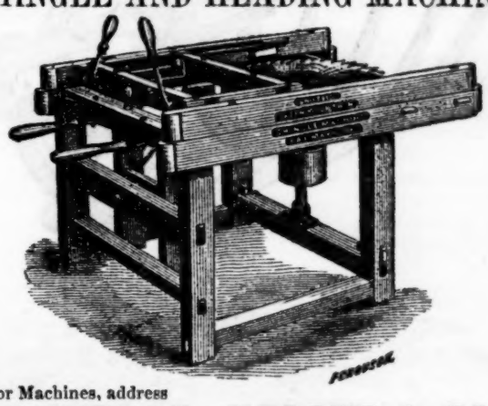
RAILWAY & LEVER HORSE POWERS,

COMBINED THRESHERS & WINNOWERS,

CLOVER HULLERS, FEED CUTTERS, SAW MILLS, SHINGLE AND HEADING MACHINES, HORSE PITCH-FORKS, HORSE RAKES, &c.
(See cuts below.)



SMITH'S GREEN MOUNTAIN
SHINGLE AND HEADING MACHINE.



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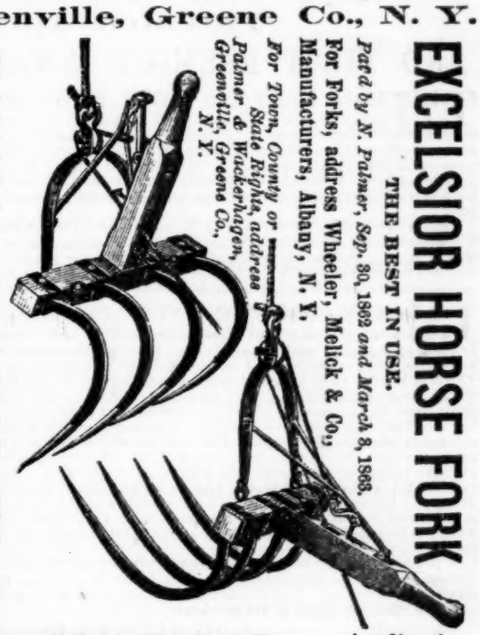
WHEELER, MELICK & CO.
For State or County Rights, address
B. F. EATON,
Greenville, Greene Co., N. Y.

EXCELSIOR HORSE FORK
THE BEST IN USE.
Patd by N. Palmer, Sep. 30, 1862 and March 8, 1863.
For Forks, address Wheeler, Melick & Co., Manufacturers, Albany, N. Y.
For Town, County or State Rights, address Palmer & Wackerhagen, Greenville, Greene Co., N. Y.
This fork took the first premium at the Illinois, Iowa, Michigan, Pennsylvania, Vermont, Delaware and Maryland State Fairs, 1863; also at the New-York State Fair in 1863; also at hundreds of County Fairs, both in the East and West.

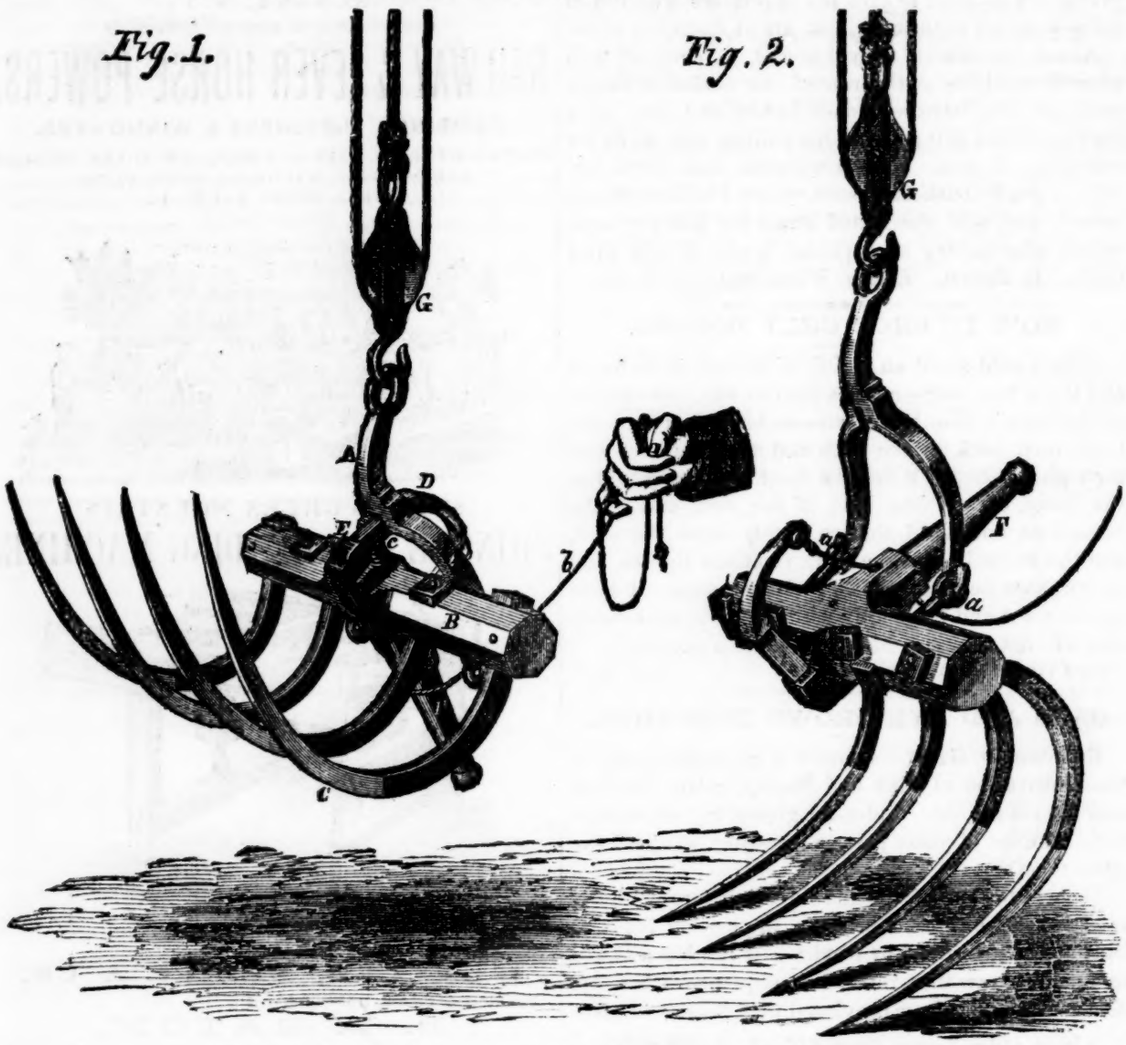


Circulars and Price List Sent Free on Application.
May 26—weow4t.

THE RUNDELL HORSE HAY FORK.

THE BEST OUT.

Fig. 1. *Fig. 2.*



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THIS is the BEST and MOST SUBSTANTIAL Fork yet invented. It is admitted by all practical farmers and mechanics who have seen it operate, to possess superior advantages over all other Forks—being simpler, more substantial, working with greater facility in all places, can be elevated higher and through a smaller space. It weighs but twenty pounds—can be worked easily by a boy of 10 years, is very strong, and is not liable to get out of repair.

That a Horse Hay Fork will pay is no longer questioned by the intelligent farmer, as it saves a vast amount of manual labor and time, which is an important consideration while labor is scarce and dear; besides it will frequently save its price when the farmer has a quantity of hay to secure from rain, as a man and two boys will, by the use of this Fork, unload a ton of hay in five minutes.

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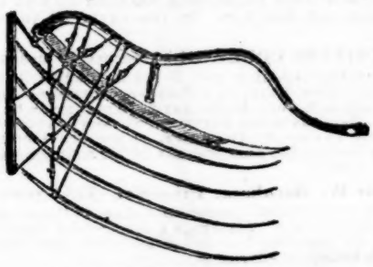

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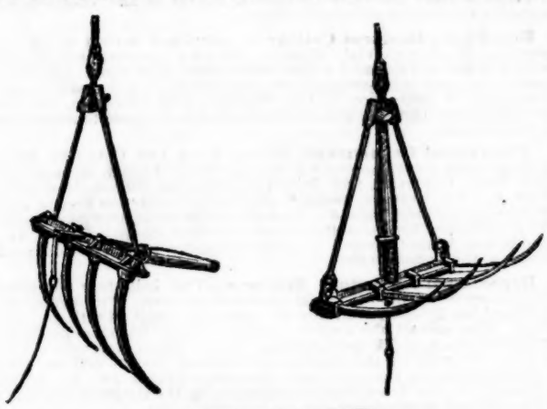

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